

Product Specifications

Motor Frame Size: 1.10 in. (28 mm) PK22

Type	Model Single Shaft Double Shaft	Basic Step Angle	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance Ω /phase	Inductance mH/phase	Rotor Inertia		Page
				oz-in	N-m					oz-in ²	kg-m ²	
High Torque Type	PK223PA	1.8°	Bipolar (Series)	9.2	0.065	0.67	3.8	5.6	4	0.049	9×10^{-7}	C-196
	PK223PB		Unipolar	7.1	0.05	0.95	2.66	2.8	1			
	PK224PA	1.8°	Bipolar (Series)	13.7	0.097	0.67	4.6	6.8	4.8	0.066	12×10^{-7}	
	PK224PB		Unipolar	10.6	0.075	0.95	3.2	3.4	1.2			
	PK225PA	1.8°	Bipolar (Series)	15.6	0.11	0.67	6.2	9.2	5.6	0.098	18×10^{-7}	
	PK225PB		Unipolar	12.7	0.09	0.95	4.4	4.6	1.4			
SH Geared Type	PK223PA-SG7.2	0.25°	Bipolar (Series)	42	0.3	0.67	3.8	5.6	4	0.049	9×10^{-7}	C-198
	PK223PB-SG7.2		Unipolar			0.95	2.66	2.8	1			
	PK223PA-SG9	0.2°	Bipolar (Series)	42	0.3	0.67	3.8	5.6	4			
	PK223PB-SG9		Unipolar			0.95	2.66	2.8	1			
	PK223PA-SG10	0.18°	Bipolar (Series)	42	0.3	0.67	3.8	5.6	4			
	PK223PB-SG10		Unipolar			0.95	2.66	2.8	1			
	PK223PA-SG18	0.1°	Bipolar (Series)	56	0.4	0.67	3.8	5.6	4			
	PK223PB-SG18		Unipolar			0.95	2.66	2.8	1			
	PK223PA-SG36	0.05°	Bipolar (Series)	56	0.4	0.67	3.8	5.6	4			
	PK223PB-SG36		Unipolar			0.95	2.66	2.8	1			

• The value given for holding torque is the value when operated with rated voltage and 2-phase excitation.

Motor Frame Size: 1.38 in. (35 mm) PK23

Type	Model Single Shaft Double Shaft	Basic Step Angle	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance Ω /phase	Inductance mH/phase	Rotor Inertia		Page
				oz-in	N-m					oz-in ²	kg-m ²	
High Torque Type	PK233PA	1.8°	Bipolar (Series)	28	0.2	0.85	4.6	5.4	5.6	0.131	24×10^{-7}	C-200
	PK233PB		Unipolar	22	0.16	1.2	3.24	2.7	1.4			
	PK235PA	1.8°	Bipolar (Series)	52	0.37	0.85	5.8	6.8	8	0.27	50×10^{-7}	
	PK235PB		Unipolar	42	0.3	1.2	4.08	3.4	2			

• The value given for holding torque is the value when operated with rated voltage and 2-phase excitation.

Motor Frame Size: 1.65 in. (42 mm) PK24

Type	Model Single Shaft Double Shaft	Basic Step Angle	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance Ω /phase	Inductance mH/phase	Rotor Inertia		Page
				oz-in	N-m					oz-in ²	kg-m ²	
Standard Type	PK243-01AA	1.8°	Bipolar (Series)	28	0.2	0.67	5.6	8.4	10	0.191	35×10^{-7}	C-204
	PK243-01BA		Unipolar	22	0.16	0.95	4	4.2	2.5			
	PK243-02AA		Bipolar (Series)	28	0.2	0.28	13	48	60			
	PK243-02BA		Unipolar	22	0.16	0.4	9.6	24	15			
	PK243-03AA		Bipolar (Series)	28	0.2	0.22	17	77	84			
	PK243-03BA		Unipolar	22	0.16	0.31	12	38.5	21			
	PK244-01AA		Bipolar (Series)	46	0.33	0.85	5.6	6.6	12.8			
	PK244-01BA		Unipolar	36	0.26	1.2	4	3.3	3.2			
	PK244-02AA		Bipolar (Series)	46	0.33	0.57	8.6	15	26.8			
	PK244-02BA		Unipolar	36	0.26	0.8	6	7.5	6.7			
	PK244-03AA		Bipolar (Series)	46	0.33	0.28	17	60	120			
	PK244-03BA		Unipolar	36	0.26	0.4	12	30	30			
	PK244-04AA		Bipolar (Series)	46	0.33	0.14	34	240	428			
	PK244-04BA		Unipolar	36	0.26	0.2	24	120	107			
	PK245-01AA		Bipolar (Series)	61	0.43	0.85	5.6	6.6	11.2			
	PK245-01BA		Unipolar	45	0.32	1.2	4	3.3	2.6			
	PK245-02AA		Bipolar (Series)	61	0.43	0.57	8.6	15	28.4			
	PK245-02BA		Unipolar	45	0.32	0.8	6	7.5	7.1			
	PK245-03AA		Bipolar (Series)	61	0.43	0.28	17	60	100			
	PK245-03BA		Unipolar	45	0.32	0.4	12	30	25			

• The value given for holding torque is the value when operated with rated voltage and 2-phase excitation.

Motor Frame Size: □1.65 in. (□42 mm) PK24□

Type	Model Single Shaft Double Shaft	Basic Step Angle	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance Ω/phase	Inductance mH/phase	Rotor Inertia		Page
				oz-in	N-m					oz-in ²	kg-m ²	
High Torque Type	PK244PA	1.8°	Bipolar (Series)	68	0.48	0.85	6.8	8	15.6	0.31	57×10 ⁻⁷	C-202
	PK244PB		Unipolar	55	0.39	1.2	4.8	4	3.9			
	PK246PA		Bipolar (Series)	132	0.93	0.85	10	12	26	0.62	114×10 ⁻⁷	
	PK246PB		Unipolar	106	0.75	1.2	7.2	6	6.5			
High Resolution Type	PK243M-01AA	0.9°	Bipolar (Series)	28	0.2	0.67	5.6	8.4	15.2	0.191	35×10 ⁻⁷	C-208
	PK243M-01BA		Unipolar	22	0.16	0.95	4	4.2	3.8			
	PK243M-02AA		Bipolar (Series)	28	0.2	0.42	8.4	20	38.8			
	PK243M-02BA		Unipolar	22	0.16	0.6	6	10	9.7			
	PK243M-03AA		Bipolar (Series)	28	0.2	0.22	17	77	136	0.3	54×10 ⁻⁷	
	PK243M-03BA		Unipolar	22	0.16	0.31	12	38.5	34			
	PK244M-01AA		Bipolar (Series)	44	0.31	0.85	5.6	6.6	17.2	0.37	68×10 ⁻⁷	
	PK244M-01BA		Unipolar	36	0.26	1.2	4	3.3	4.3			
	PK244M-02AA		Bipolar (Series)	44	0.31	0.57	8.6	15	38.8			
	PK244M-02BA		Unipolar	36	0.26	0.8	6	7.5	9.7			
	PK244M-03AA		Bipolar (Series)	44	0.31	0.28	17	60	152	0.37	68×10 ⁻⁷	
	PK244M-03BA		Unipolar	36	0.26	0.4	12	30	38			
	PK245M-01AA		Bipolar (Series)	53	0.38	0.85	5.6	6.6	15.6			
	PK245M-01BA		Unipolar	45	0.32	1.2	4	3.3	3.9			
	PK245M-02AA		Bipolar (Series)	53	0.38	0.57	8.6	15	39.6	0.37	68×10 ⁻⁷	
	PK245M-02BA		Unipolar	45	0.32	0.8	6	7.5	9.9			
PK245M-03AA	Bipolar (Series)	53	0.38	0.28	17	60	128					
PK245M-03BA	Unipolar	45	0.32	0.4	12	30	32					

• The value given for holding torque is the value when operated with rated voltage and 2-phase excitation.

Motor Frame Size: □1.65 in. (□42 mm) PK243

Type	Model Single Shaft Double Shaft	Basic Step Angle	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance Ω/phase	Inductance mH/phase	Rotor Inertia		Page
				lb-in	N-m					oz-in ²	kg-m ²	
SH Geared Type	PK243A1A-SG3.6	0.5°	Bipolar (Series)	1.77	0.2	0.67	5.6	8.4	10	0.191	35×10 ⁻⁷	C-212
	PK243B1A-SG3.6		Unipolar			0.95	4.0	4.2	2.5			
	PK243A1A-SG7.2	0.25°	Bipolar (Series)	3.5	0.4	0.67	5.6	8.4	10			
	PK243B1A-SG7.2		Unipolar			0.95	4.0	4.2	2.5			
	PK243A1A-SG9	0.2°	Bipolar (Series)	4.4	0.5	0.67	5.6	8.4	10	0.191	35×10 ⁻⁷	
	PK243B1A-SG9		Unipolar			0.95	4.0	4.2	2.5			
	PK243A1A-SG10	0.18°	Bipolar (Series)	4.9	0.56	0.67	5.6	8.4	10			
	PK243B1A-SG10		Unipolar			0.95	4.0	4.2	2.5			
	PK243A1A-SG18	0.1°	Bipolar (Series)	7.0	0.8	0.67	5.6	8.4	10	0.191	35×10 ⁻⁷	
	PK243B1A-SG18		Unipolar			0.95	4.0	4.2	2.5			
	PK243A1A-SG36	0.05°	Bipolar (Series)	7.0	0.8	0.67	5.6	8.4	10			
	PK243B1A-SG36		Unipolar			0.95	4.0	4.2	2.5			
	PK243A2A-SG3.6	0.5°	Bipolar (Series)	1.77	0.2	0.28	13	48	60	0.191	35×10 ⁻⁷	
	PK243B2A-SG3.6		Unipolar			0.4	9.6	24	15			
	PK243A2A-SG7.2	0.25°	Bipolar (Series)	3.5	0.4	0.28	13	48	60			
	PK243B2A-SG7.2		Unipolar			0.4	9.6	24	15			
	PK243A2A-SG9	0.2°	Bipolar (Series)	4.4	0.5	0.28	13	48	60	0.191	35×10 ⁻⁷	
	PK243B2A-SG9		Unipolar			0.4	9.6	24	15			
	PK243A2A-SG10	0.18°	Bipolar (Series)	4.9	0.56	0.28	13	48	60			
	PK243B2A-SG10		Unipolar			0.4	9.6	24	15			
	PK243A2A-SG18	0.1°	Bipolar (Series)	7.0	0.8	0.28	13	48	60	0.191	35×10 ⁻⁷	
	PK243B2A-SG18		Unipolar			0.4	9.6	24	15			
	PK243A2A-SG36	0.05°	Bipolar (Series)	7.0	0.8	0.28	13	48	60			
	PK243B2A-SG36		Unipolar			0.4	9.6	24	15			

• The value given for holding torque is the value when operated with rated voltage and 2-phase excitation.

Introduction

AS

AS PLUS

ASC

RK

CRK II

CSK

PMC

UMK

CSK

PK/PV

PK

UN2120G

EMP401

EMP402

SG8030J

SMK

Accessories

Before Using a Stepping Motor

Driver

Controllers

Low-Speed Synchronous Motors

C-191

Motor Frame Size: 2.22 in. (56.4 mm) **PK26**

Type	Model Single Shaft Double Shaft	Basic Step Angle	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance Ω /phase	Inductance mH/phase	Rotor Inertia		Page
				oz-in	N-m					oz-in ²	kg-m ²	
Standard Type	PK264-01A	1.8°	Bipolar (Series)	68	0.48	0.71	8.1	11.4	21.6	0.66	120×10 ⁻⁷	C-214
	PK264-01B		Unipolar	55	0.39	1	5.7	5.7	5.4			
	PK264-02A		Bipolar (Series)	68	0.48	1.4	3.9	2.8	5.6			
	PK264-02B		Unipolar	55	0.39	2	2.8	1.4	1.4			
	PK264-03A		Bipolar (Series)	68	0.48	2.1	2.6	1.26	2.4			
	PK264-03B		Unipolar	55	0.39	3	1.9	0.63	0.6			
	PK264-E2.0A		Bipolar (Parallel)	68	0.48	2.8	1.96	0.7	1.4			
	PK264-E2.0B		Bipolar (Series)	68	0.48	1.4	3.9	2.8	5.6			
	PK266-01A		Bipolar (Series)	166	1.17	0.71	11	14.8	40			
	PK266-01B		Unipolar	127	0.9	1	7.4	7.4	10			
	PK266-02A		Bipolar (Series)	166	1.17	1.4	5	3.6	10			
	PK266-02B		Unipolar	127	0.9	2	3.6	1.8	2.5			
	PK266-03A		Bipolar (Series)	166	1.17	2.1	3.2	1.5	4.4			
	PK266-03B		Unipolar	127	0.9	3	2.3	0.75	1.1			
	PK266-E2.0A		Bipolar (Parallel)	166	1.17	2.8	2.52	0.9	2.5			
	PK266-E2.0B		Bipolar (Series)	166	1.17	1.4	5	3.6	10			
	PK268-01A		Bipolar (Series)	248	1.75	0.71	12	17.2	56			
	PK268-01B		Unipolar	191	1.35	1	8.6	8.6	14			
	PK268-02A		Bipolar (Series)	248	1.75	1.4	6.3	4.5	14.4			
	PK268-02B		Unipolar	191	1.35	2	4.5	2.25	3.6			
	PK268-03A		Bipolar (Series)	248	1.75	2.1	4.2	2	6.4			
	PK268-03B		Unipolar	191	1.35	3	3	1	1.6			
	PK268-E2.0A		Bipolar (Parallel)	240	1.75	2.8	3.16	1.13	3.6			
	PK268-E2.0B		Bipolar (Series)	240	1.75	1.4	6.3	4.5	14.4			
PK268-E2.0B	Unipolar	191	1.35	2	4.5	2.25	3.6					
Standard Type with Encoder	PK264-01AR11	1.8°	Bipolar (Series)	68	0.48	0.71	8.1	11.4	21.6	0.66	120×10 ⁻⁷	C-233
	PK264-01AR12		Unipolar	55	0.39	1	5.7	5.7	5.4			
	PK264-02AR11		Bipolar (Series)	68	0.48	1.4	3.9	2.8	5.6			
	PK264-02AR12		Unipolar	55	0.39	2	2.8	1.4	1.4			
	PK264-03AR11		Bipolar (Series)	68	0.48	2.1	2.6	1.26	2.4			
	PK264-03AR12		Unipolar	55	0.39	3	1.9	0.63	0.6			
	PK264-E2.0AR11		Bipolar (Parallel)	68	0.48	2.8	1.96	0.7	1.4			
	PK264-E2.0AR12		Bipolar (Series)	68	0.48	1.4	3.9	2.8	5.6			
	PK266-01AR11		Bipolar (Series)	166	1.17	0.71	11	14.8	40			
	PK266-01AR12		Unipolar	127	0.9	1	7.4	7.4	10			
	PK266-02AR11		Bipolar (Series)	166	1.17	1.4	5	3.6	10			
	PK266-02AR12		Unipolar	127	0.9	2	3.6	1.8	2.5			
	PK266-03AR11		Bipolar (Series)	166	1.17	2.1	3.2	1.5	4.4			
	PK266-03AR12		Unipolar	127	0.9	3	2.3	0.75	1.1			
	PK266-E2.0AR11		Bipolar (Parallel)	166	1.17	2.8	2.52	0.9	2.5			
	PK266-E2.0AR12		Bipolar (Series)	166	1.17	1.4	5	3.6	10			
	PK266-E2.0AR12		Unipolar	127	0.9	2	3.6	1.8	2.5			

● The value given for holding torque is the value when operated with rated voltage and 2-phase excitation.

Motor Frame Size: 2.22 in. (56.4 mm) **PK26**

Type	Model Single Shaft Double Shaft	Basic Step Angle	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance Ω /phase	Inductance mH/phase	Rotor Inertia		Page
				oz-in	N-m					oz-in ²	kg-m ²	
High Resolution Type	PK264M-01A	0.9°	Bipolar (Series)	68	0.48	0.71	8.1	11.4	26	0.66	120×10^{-7}	C-218
	PK264M-01B		Unipolar	55	0.39	1	5.7	5.7	6.5			
	PK264M-02A		Bipolar (Series)	68	0.48	1.4	3.9	2.8	6.8			
	PK264M-02B		Unipolar	55	0.39	2	2.8	1.4	1.7			
	PK264M-03A		Bipolar (Series)	68	0.48	2.1	2.6	1.26	3			
	PK264M-03B		Unipolar	55	0.39	3	1.9	0.63	0.75			
	PK264M-E2.0A		Bipolar (Parallel)	68	0.48	2.8	1.96	0.7	1.7			
	PK264M-E2.0B		Bipolar (Series)	68	0.48	1.4	3.9	2.8	6.8			
	PK266M-01A		Bipolar (Series)	166	1.17	0.71	11	14.8	50.8			
	PK266M-01B		Unipolar	127	0.9	1	7.4	7.4	12.7			
	PK266M-02A		Bipolar (Series)	166	1.17	1.4	5	3.6	12.8			
	PK266M-02B		Unipolar	127	0.9	2	3.6	1.8	3.2			
	PK266M-03A		Bipolar (Series)	166	1.17	2.1	3.2	1.5	5.8			
	PK266M-03B		Unipolar	127	0.9	3	2.3	0.75	1.45			
	PK266M-E2.0A		Bipolar (Parallel)	166	1.17	2.8	2.52	0.9	3.2			
	PK266M-E2.0B		Bipolar (Series)	166	1.17	1.4	5	3.6	12.8			
	PK268M-01A		Bipolar (Series)	248	1.75	0.71	12	17.2	77.6			
	PK268M-01B		Unipolar	191	1.35	1	8.6	8.6	19.4			
	PK268M-02A		Bipolar (Series)	248	1.75	1.4	6.3	4.5	19.2			
	PK268M-02B		Unipolar	191	1.35	2	4.5	2.25	4.8			
PK268M-03A	Bipolar (Series)	248	1.75	2.1	4.2	2	8.4					
PK268M-03B	Unipolar	191	1.35	3	3	1	2.1					
PK268M-E2.0A	Bipolar (Parallel)	240	1.75	2.8	3.16	1.13	4.8					
PK268M-E2.0B	Bipolar (Series)	240	1.75	1.4	6.3	4.5	19.2					
PK268M-E2.0B	Unipolar	191	1.35	2	4.5	2.25	4.8					
High Resolution Type with Encoder	PK264M-01AR11	0.9°	Bipolar (Series)	68	0.48	0.71	8.1	11.4	26	0.66	120×10^{-7}	C-236
	PK264M-01AR12		Unipolar	55	0.39	1	5.7	5.7	6.5			
	PK264M-02AR11		Bipolar (Series)	68	0.48	1.4	3.9	2.8	6.8			
	PK264M-02AR12		Unipolar	55	0.39	2	2.8	1.4	1.7			
	PK264M-03AR11		Bipolar (Series)	68	0.48	2.1	2.6	1.26	3			
	PK264M-03AR12		Unipolar	55	0.39	3	1.9	0.63	0.75			
	PK264M-E2.0AR11		Bipolar (Parallel)	68	0.48	2.8	1.96	0.7	1.7			
	PK264M-E2.0AR12		Bipolar (Series)	68	0.48	1.4	3.9	2.8	6.8			
	PK266M-01AR11		Bipolar (Series)	166	1.17	0.71	11	14.8	50.8			
	PK266M-01AR12		Unipolar	127	0.9	1	7.4	7.4	12.7			
	PK266M-02AR11		Bipolar (Series)	166	1.17	1.4	5	3.6	12.8			
	PK266M-02AR12		Unipolar	127	0.9	2	3.6	1.8	3.2			
	PK266M-03AR11		Bipolar (Series)	166	1.17	2.1	3.2	1.5	5.8			
	PK266M-03AR12		Unipolar	127	0.9	3	2.3	0.75	1.45			
	PK266M-E2.0AR11		Bipolar (Parallel)	166	1.17	2.8	2.52	0.9	3.2			
	PK266M-E2.0AR12		Bipolar (Series)	166	1.17	1.4	5	3.6	12.8			
	PK266M-E2.0AR12		Unipolar	127	0.9	2	3.6	1.8	3.2			

• The value given for holding torque is the value when operated with rated voltage and 2-phase excitation.

Introduction

AS

AS PLUS

ASC

RK

CRK II

CSK

PMC

UMK

CSK

PK/PV

PK

U12120G

EMP401

EMP402

SG8030J

SMK

Accessories

Before Using a Stepping Motor

Driver with Indeler

Controllers

Low-Speed Synchronous Motors

Before Using a Stepping Motor

Motor Frame Size: 2.22 in. (56.4 mm) PK264 Frame Size of **SH** Geared Type is 2.36 in. (60 mm)

Type	Model Single Shaft Double Shaft	Basic Step Angle	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance Ω /phase	Inductance mH/phase	Rotor Inertia		Page
				lb-in	N-m					oz-in ²	kg-m ²	
SH Geared Type	PK264A1A-SG3.6	0.5°	Bipolar (Series)	8.8	1	0.71	8.1	11.4	21.6	0.66	120×10 ⁻⁷	C-222
	Unipolar		1			5.7						
	PK264A1A-SG7.2	0.25°	Bipolar (Series)	17.7	2	0.71	8.1	11.4	21.6			
	Unipolar		1			5.7						
	PK264A1A-SG9	0.2°	Bipolar (Series)	22	2.5	0.71	8.1	11.4	21.6			
	Unipolar		1			5.7						
	PK264A1A-SG10	0.18°	Bipolar (Series)	23	2.7	0.71	8.1	11.4	21.6			
	Unipolar		1			5.7						
	PK264A1A-SG18	0.1°	Bipolar (Series)	26	3	0.71	8.1	11.4	21.6			
	Unipolar		1			5.7						
	PK264A1A-SG36	0.05°	Bipolar (Series)	35	4	0.71	8.1	11.4	21.6			
	Unipolar		1			5.7				5.4		
	PK264A2A-SG3.6	0.5°	Bipolar (Series)	8.8	1	1.4	3.9	2.8	5.6	0.66	120×10 ⁻⁷	
	Unipolar		2			2.8						
	PK264A2A-SG7.2	0.25°	Bipolar (Series)	17.7	2	1.4	3.9	2.8	5.6			
	Unipolar		2			2.8						
	PK264A2A-SG9	0.2°	Bipolar (Series)	22	2.5	1.4	3.9	2.8	5.6			
	Unipolar		2			2.8						
	PK264A2A-SG10	0.18°	Bipolar (Series)	23	2.7	1.4	3.9	2.8	5.6			
	Unipolar		2			2.8						
PK264A2A-SG18	0.1°	Bipolar (Series)	26	3	1.4	3.9	2.8	5.6				
Unipolar		2			2.8				1.4			1.4
PK264A2A-SG36	0.05°	Bipolar (Series)	35	4	1.4	3.9	2.8	5.6				
Unipolar		2			2.8				1.4	1.4		

• The value given for holding torque is the value when operated with rated voltage and 2-phase excitation.

Motor Frame Size: 2.36 in. (60 mm) PV26

Type	Model Single Shaft Double Shaft	Basic Step Angle	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance Ω /phase	Inductance mH/phase	Rotor Inertia		Page
				oz-in	N-m					oz-in ²	kg-m ²	
PV Series (High Inertia Capability)	PV264-02AA	1.8°	Bipolar (Series)	150	1.06	1.4	4.1	2.92	7.2	1.53	280×10 ⁻⁷	C-224
	Unipolar		106									
	PV264-D2.8AA		Bipolar	150	1.06	2.8	2.1	0.73	1.8			
	PV264-D2.8BA											
	PV266-02AA		Bipolar (Series)	240	1.75	1.4	5.6	4	12.2			
	PV266-02BA									191	1.35	
	PV266-D2.8AA		Bipolar	240	1.75	2.8	2.8	1	3.05			
	PV266-D2.8BA											
	PV267-02AA		Bipolar (Series)	310	2.2	1.4	6.7	4.8	14.2			
	PV267-02BA									240	1.7	
	PV267-D2.8AA		Bipolar	310	2.2	2.8	3.4	1.2	3.54			
	PV267-D2.8BA											
	PV269-02AA		Bipolar (Series)	440	3.1	1.4	8.3	5.96	22.8			
	PV269-02BA									310	2.2	
	PV269-D2.8AA		Bipolar	440	3.1	2.8	4.2	1.49	5.7			
	PV269-D2.8BA											

• The value given for holding torque is the value when operated with rated voltage and 2-phase excitation.

Motor Frame Size: □3.35 in. (□85 mm) PK29□

Type	Model Single Shaft Double Shaft	Basic Step Angle	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance Ω/phase	Inductance mH/phase	Rotor Inertia		Page
				oz-in	N-m					oz-in ²	kg-m ²	
Standard Type	PK296-01AA	1.8°	Bipolar (Series)	440	3.1	1.4	6.2	4.4	30.8	7.7	1400×10 ⁻⁷	C-277
	PK296-01BA		Unipolar	310	2.2	2	4.4	2.2	7.7			
	PK296-02AA		Bipolar (Series)	440	3.1	2.1	4.2	2	14			
	PK296-02BA		Unipolar	310	2.2	3	3	1	3.5			
	PK296-03AA		Bipolar (Series)	440	3.1	3.18	2.8	0.96	6			
	PK296-03BA		Unipolar	310	2.2	4.5	2	0.48	1.5			
	PK296-F4.5A		Bipolar (Parallel)	440	3.1	6.3	1.4	0.24	1.5			
	PK296-F4.5B		Bipolar (Series)	440	3.1	3.18	2.8	0.96	6			
	PK299-01AA		Bipolar (Series)	880	6.2	1.4	9	6.4	56			
	PK299-01BA		Unipolar	620	4.4	2	6.4	3.2	14			
	PK299-02AA		Bipolar (Series)	880	6.2	2.1	6	3	24			
	PK299-02BA		Unipolar	620	4.4	3	4.2	1.5	6			
	PK299-03AA		Bipolar (Series)	880	6.2	3.18	3.9	1.32	10			
	PK299-03BA		Unipolar	620	4.4	4.5	2.8	0.66	2.5			
	PK299-F4.5A		Bipolar (Parallel)	880	6.2	6.3	1.9	0.33	2.5			
	PK299-F4.5B		Bipolar (Series)	880	6.2	3.18	3.9	1.32	10			
	PK2913-01AA		Bipolar (Series)	1320	9.3	1.4	10	7.6	76.8			
	PK2913-01BA		Unipolar	930	6.6	2	7.6	3.8	19.2			
	PK2913-02AA		Bipolar (Series)	1320	9.3	2.8	5.3	1.94	16.8			
	PK2913-02BA		Unipolar	930	6.6	4	3.8	0.97	4.2			
PK2913-F4.0A	Bipolar (Parallel)	1320	9.3	5.6	2.6	0.49	4.2					
PK2913-F4.0B	Bipolar (Series)	1320	9.3	2.8	5.3	1.94	16.8					
	Unipolar	930	6.6	4	3.8	0.97	4.2					

• The value given for holding torque is the value when operated with rated voltage and 2-phase excitation.

Motor Frame Size: □3.35 in. (□85 mm) PK296 Frame Size of SH Geared Type is □3.54 in. (□90 mm)

Type	Model Single Shaft Double Shaft	Basic Step Angle	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance Ω/phase	Inductance mH/phase	Rotor Inertia		Page
				lb-in	N-m					oz-in ²	kg-m ²	
SH Geared Type	PK296A1A-SG3.6	0.5°	Bipolar (Series)	22	2.5	1	4.4	4.4	30.8	7.7	1400×10 ⁻⁷	C-231
	PK296B1A-SG3.6		Unipolar			1.5	3.3	2.2	7.7			
	PK296A1A-SG7.2	0.25°	Bipolar (Series)	44	5	1	4.4	4.4	30.8			
	PK296B1A-SG7.2		Unipolar			1.5	3.3	2.2	7.7			
	PK296A1A-SG9	0.2°	Bipolar (Series)	55	6.3	1	4.4	4.4	30.8			
	PK296B1A-SG9		Unipolar			1.5	3.3	2.2	7.7			
	PK296A1A-SG10	0.18°	Bipolar (Series)	61	7	1	4.4	4.4	30.8			
	PK296B1A-SG10		Unipolar			1.5	3.3	2.2	7.7			
	PK296A1A-SG18	0.1°	Bipolar (Series)	79	9	1	4.4	4.4	30.8			
	PK296B1A-SG18		Unipolar			1.5	3.3	2.2	7.7			
	PK296A1A-SG36	0.05°	Bipolar (Series)	106	12	1	4.4	4.4	30.8			
	PK296B1A-SG36		Unipolar			1.5	3.3	2.2	7.7			
	PK296A2A-SG3.6	0.5°	Bipolar (Series)	22	2.5	2.1	2	0.96	6			
	PK296B2A-SG3.6		Unipolar			3	1.4	0.48	1.5			
	PK296A2A-SG7.2	0.25°	Bipolar (Series)	44	5	2.1	2	0.96	6			
	PK296B2A-SG7.2		Unipolar			3	1.4	0.48	1.5			
	PK296A2A-SG9	0.2°	Bipolar (Series)	55	6.3	2.1	2	0.96	6			
	PK296B2A-SG9		Unipolar			3	1.4	0.48	1.5			
	PK296A2A-SG10	0.18°	Bipolar (Series)	61	7	2.1	2	0.96	6			
	PK296B2A-SG10		Unipolar			3	1.4	0.48	1.5			
PK296A2A-SG18	0.1°	Bipolar (Series)	79	9	2.1	2	0.96	6				
PK296B2A-SG18		Unipolar			3	1.4	0.48	1.5				
PK296A2A-SG36	0.05°	Bipolar (Series)	106	12	2.1	2	0.96	6				
PK296B2A-SG36		Unipolar			3	1.4	0.48	1.5				

• The value given for holding torque is the value when operated with rated voltage and 2-phase excitation.

Introduction

AS

AS PLUS

ASC

RK

CRK II

CSK

PMC

UMK

CSK

PK/PV

PK

UN2120G

EMP401

EMP402

SG8030J

SMK

Accessories

Before Using a Stepping Motor

Controllers

Low-Speed Synchronous Motors

Driver with Indexer

C-195

1.10 in. (28 mm)

Step Angle 1.8°

PK Series High Torque Type



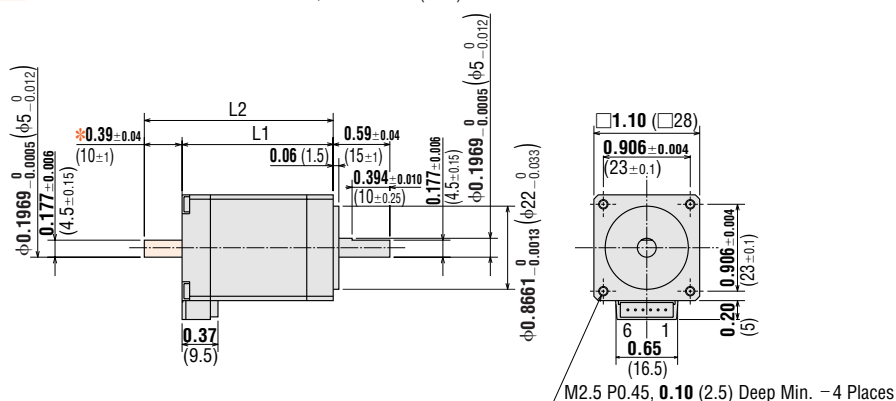
Specifications

Model	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance per Phase Ω/phase	Inductance mH/phase	Rotor Inertia J		Lead Wires (Pins)
		oz-in	N-m					oz-in ²	kg·m ²	
PK223PA	Bipolar (Series)	9.2	0.065	0.67	3.8	5.6	4	0.049	9×10 ⁻⁷	6
PK223PB	Unipolar	7.1	0.05	0.95	2.66	2.8	1			
PK224PA	Bipolar (Series)	13.7	0.097	0.67	4.6	6.8	4.8	0.066	12×10 ⁻⁷	6
PK224PB	Unipolar	10.6	0.075	0.95	3.2	3.4	1.2			
PK225PA	Bipolar (Series)	15.6	0.11	0.67	6.2	9.2	5.6	0.098	18×10 ⁻⁷	6
PK225PB	Unipolar	12.7	0.09	0.95	4.4	4.6	1.4			

How to Read Specifications → Page C-9

Motor Wiring Diagrams → Page C-189

Dimensions Scale 1/2, Unit = inch (mm)



- * The length of machining on double shaft model is 0.394 ± 0.010 (10 ± 0.25).
- These dimensions are for double shaft models. For single shaft models, ignore the shaded area.

Applicable Connector

The following housing and contacts must be purchased separately.

Housing: 51065-0600 (MOLEX)

Contact: 50212-8100 (MOLEX)

Connector Assembly Tool: 57176-5000 (MOLEX)

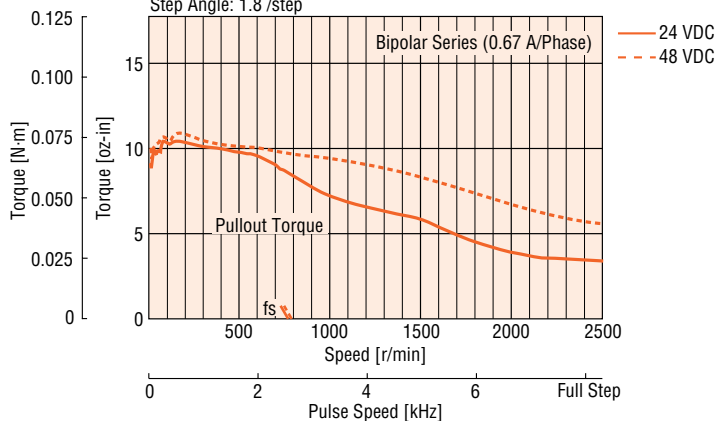
Model	L1 inch (mm)	L2 inch (mm)	Weight lb. (kg)	DXF
PK223PA	1.26 (32)	—	0.24 (0.11)	B326
PK223PB		1.65 (42)		
PK224PA	1.57 (40)	—	0.31 (0.14)	B327
PK224PB		1.97 (50)		
PK225PA	2.03 (51.5)	—	0.44 (0.2)	B328
PK225PB		2.42 (61.5)		

Speed-Torque Characteristics

How to Read Speed-Torque Characteristics → Page C-10

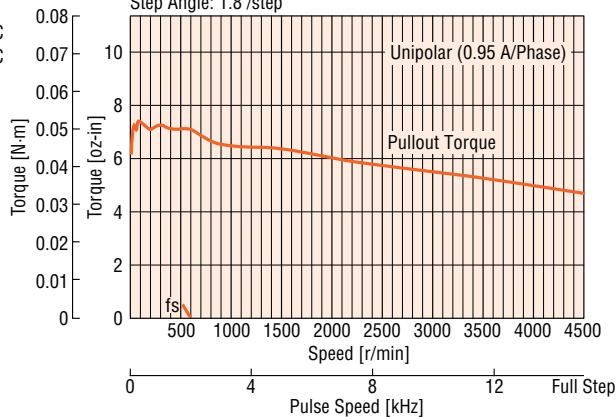
PK223PB Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2$ ($34 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: 1.8°/step



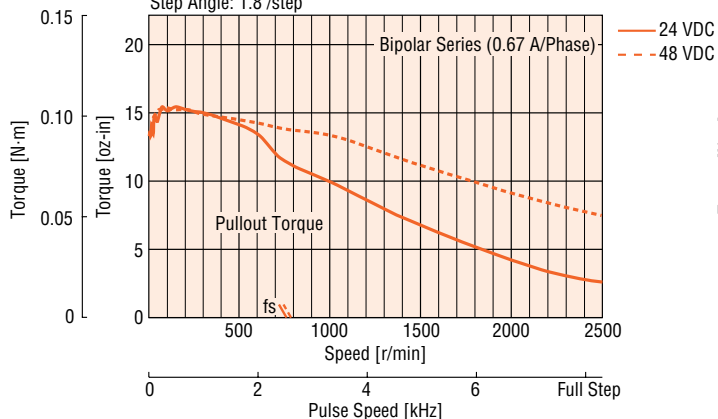
PK223PB Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2$ ($34 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: 1.8°/step



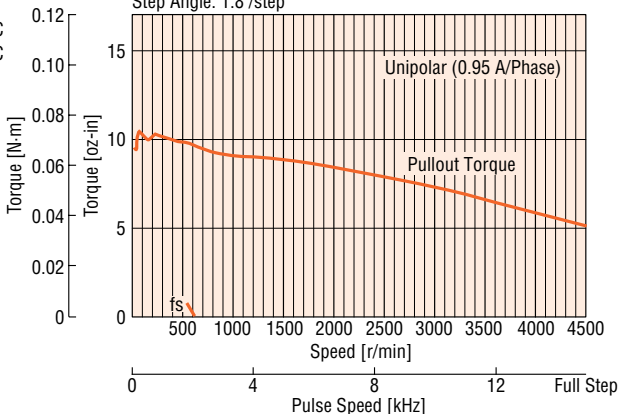
PK224PB Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2$ ($34 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: 1.8°/step



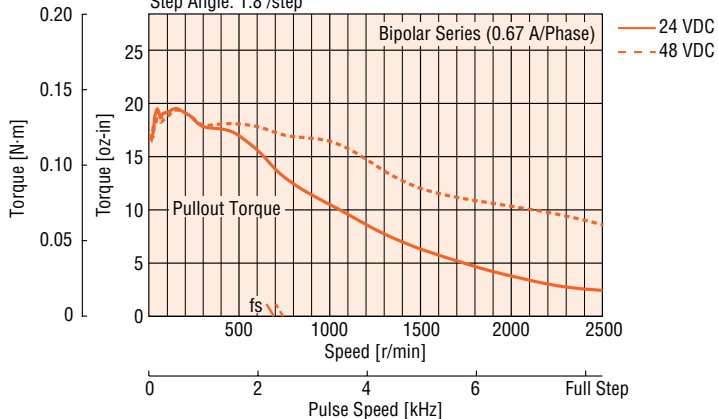
PK224PB Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2$ ($34 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: 1.8°/step



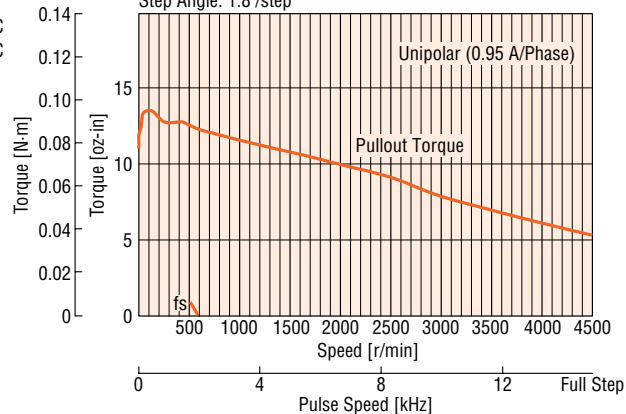
PK225PB Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2$ ($34 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: 1.8°/step



PK225PB Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2$ ($34 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: 1.8°/step



Motor Cables (Sold separately)

These cables make it easy to connect the high torque type motor. The crimped connectors eliminate the need for assembly. There are two cable lengths to choose from.

Model	Cable Length		Number of Leads	Lead Specifications	
	feet	(m)		UL Style No.	AWG No.
LC2U06A	2	(0.6)	6 Leads	3265	24
LC2U10A	3.3	(1)			



□ 1.10 in. (□ 28 mm)

PK Series SH Geared Type



Specifications

Motor Specifications

Model	Connection Type	Current per Phase	Voltage	Resistance per Phase	Inductance	Rotor Inertia J		Lead Wires (Pins)
						oz-in ²	kg-m ²	
Single Shaft	Bipolar (Series)	A/phase	VDC	Ω/phase	mH/phase	oz-in ²	kg-m ²	6
Double Shaft								
PK223PA-SG □		0.67	3.8	5.6	4	0.049	9×10 ⁻⁷	6
PK223PB-SG □	Unipolar	0.95	2.66	2.8	1			

How to Read Specifications → Page C-9

Motor Wiring Diagrams → Page C-189

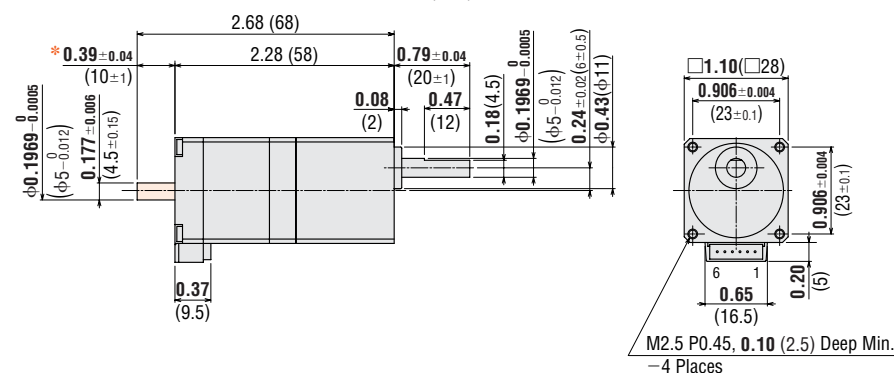
• Enter the gear ratio in the box (□) within the model number.

Gearmotor Specifications

Model	Gear Ratio	Holding Torque*		Step Angle	Permissible Speed
		oz-in	N-m		
Single Shaft	7.2:1	42	0.3	0.25°	250
Double Shaft					
PK223PA-SG7.2	9:1	42	0.3	0.2°	200
PK223PB-SG7.2					
PK223PA-SG9	10:1	42	0.3	0.18°	180
PK223PB-SG9					
PK223PA-SG10	18:1	56	0.4	0.1°	100
PK223PB-SG10					
PK223PA-SG18	36:1	56	0.4	0.05°	50
PK223PB-SG18					
PK223PA-SG36					
PK223PB-SG36					

* Holding torque is the same regardless of the connection type, due to the permissible torque limit of the gearhead.

Dimensions Scale 1/2, Unit = inch (mm)



* The length of machining on double shaft model is 0.394±0.010 (10±0.25).

Mounting Screws (included)

M2.5 P0.45 0.31 in. (8 mm) length: 4 pieces

• These dimensions are for double shaft models. For single shaft models, ignore the shaded area.

Applicable Connector

The following housing and contacts must be purchased separately.

Housing: 51065-0600 (MOLEX)

Contact: 50212-8100 (MOLEX)

Connector Assembly Tool: 57176-5000 (MOLEX)

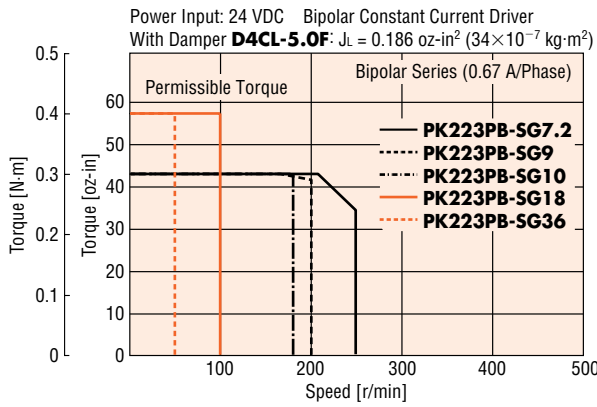
Model	Weight lb. (kg)	DXF
PK223PA-SG □	0.35 (0.16)	B335
PK223PB-SG □		

• Enter the gear ratio in the box (□) within the model number.

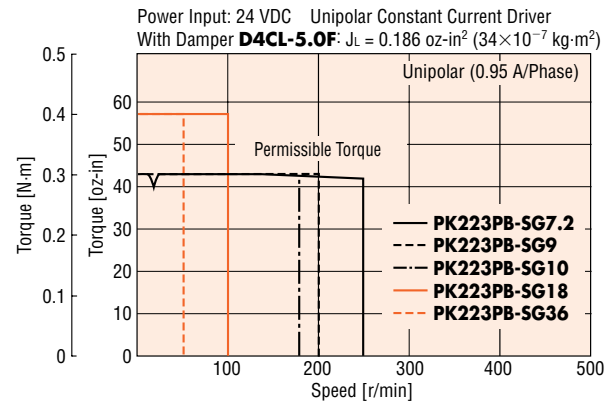
Speed-Torque Characteristics

How to Read Speed-Torque Characteristics → Page C-10

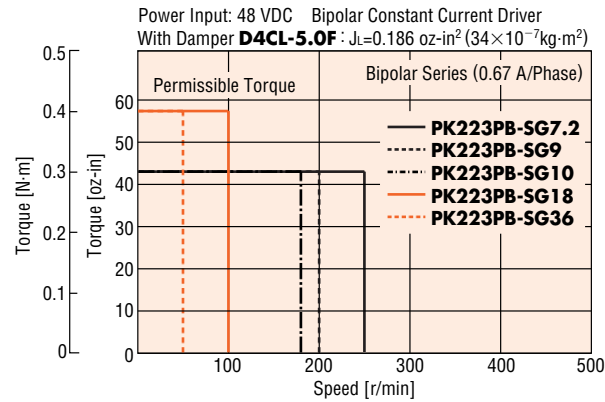
PK223PB-SG Bipolar (Series) 24 VDC



PK223PB-SG Unipolar



PK223PB-SG Bipolar (Series) 48 VDC



Motor Cables (Sold separately)

These cables make it easy to connect the high torque type motor. The crimped connectors eliminate the need for assembly. There are two cable lengths to choose from.

Model	Cable Length		Number of Leads	Lead Specifications	
	feet	(m)		UL Style No.	AWG No.
LC2U06A	2	(0.6)	6 Leads	3265	24
LC2U10A	3.3	(1)			



Introduction

AS

AS PLUS

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

Introduction

AS

AS PLUS

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

Introduction

AS

AS PLUS

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

1.38 in. (35 mm)

Step Angle 1.8°

PK Series High Torque Type



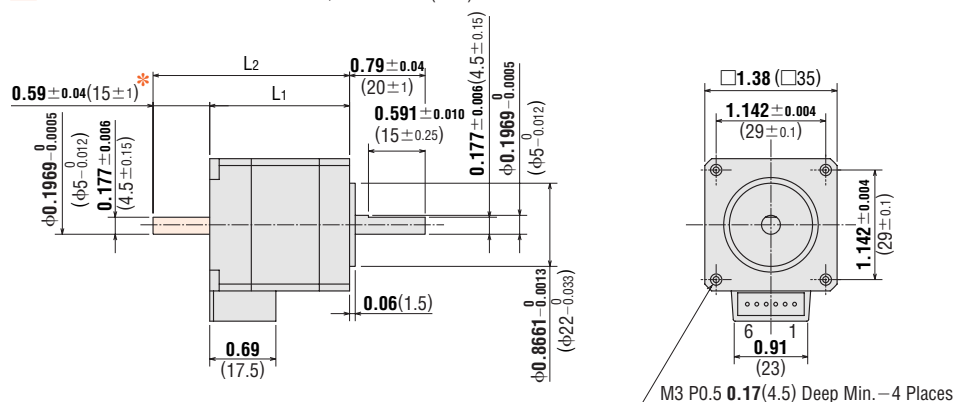
Specifications

Model	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance per Phase Ω/phase	Inductance mH/phase	Rotor Inertia J		Lead Wires (Pins)
		oz-in	N-m					oz-in ²	kg-m ²	
PK233PA	Bipolar (Series)	28	0.2	0.85	4.6	5.4	5.6	0.131	24×10 ⁻⁷	6
PK233PB	Unipolar	22	0.16	1.2	3.24	2.7	1.4			
PK235PA	Bipolar (Series)	52	0.37	0.85	5.8	6.8	8	0.27	50×10 ⁻⁷	6
PK235PB	Unipolar	42	0.3	1.2	4.08	3.4	2			

How to Read Specifications → Page C-9

Motor Wiring Diagrams → Page C-189

Dimensions Scale 1/2, Unit = inch (mm)



* The length of machining on double shaft model is 0.591 ± 0.010 (15±0.25).

• These dimensions are for double shaft models. For single shaft models, ignore the shaded area.

Applicable Connector

The following housing and contacts must be purchased separately.

Housing: 51103-0600 (MOLEX, Positive Lock Type) or

51102-0600 (MOLEX, Friction Lock Type)

Contact: 50351-8100 (MOLEX)

Connector Assembly Tool: 57295-5000 (MOLEX)

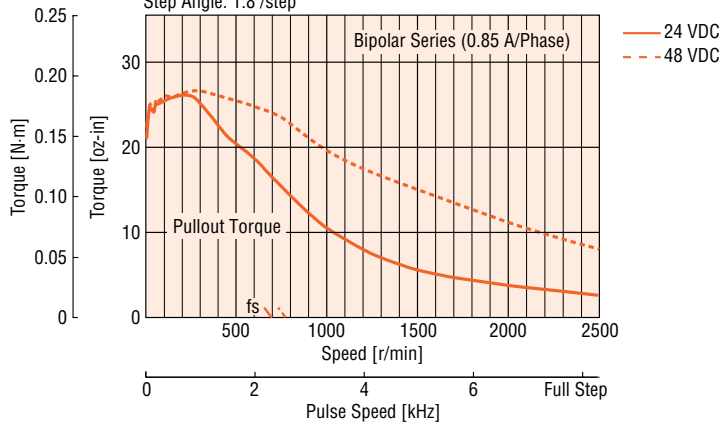
Model	L1 inch (mm)	L2 inch (mm)	Weight lb. (kg)	DXF
PK233PA	1.46 (37)	—	0.4 (0.18)	B329
PK233PB		2.05 (52)		
PK235PA	2.05 (52)	—	0.63 (0.285)	B330
PK235PB		2.64 (67)		

Speed-Torque Characteristics

How to Read Speed-Torque Characteristics → Page C-10

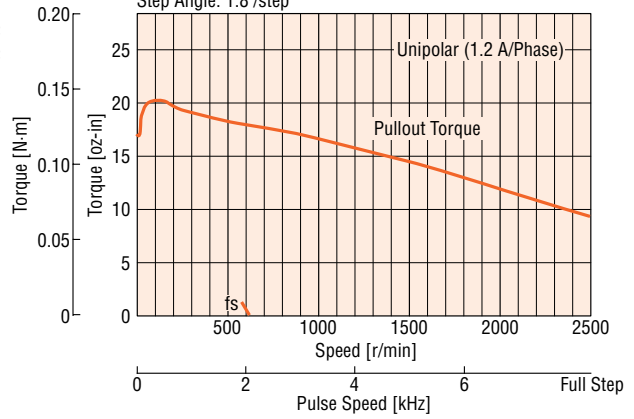
PK233PB Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



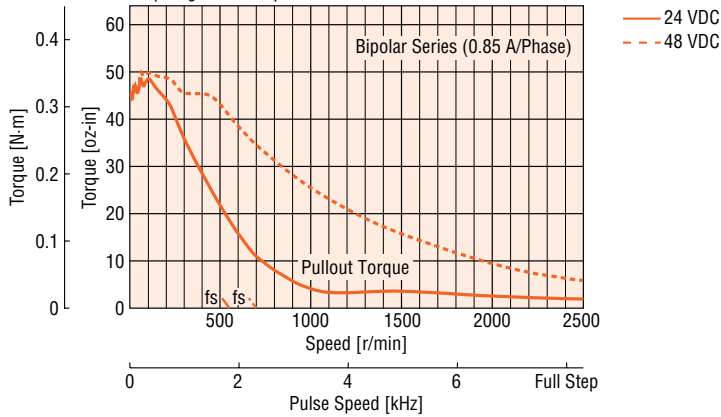
PK233PB Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



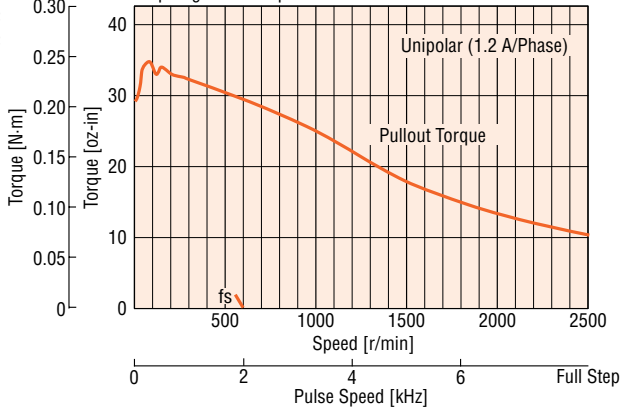
PK235PB Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



PK235PB Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



Motor Cables (Sold separately)

These cables make it easy to connect the high torque type motor. The crimped connectors eliminate the need for assembly. There are two cable lengths to choose from.

Model	Cable Length		Number of Leads	Lead Specifications	
	feet	(m)		UL Style No.	AWG No.
LC2U06B	2	(0.6)	6 Leads	3265	24
LC2U10B	3.3	(1)			



Introduction	AS	AS PLUS	ASC	RK	CRK II	CSK	PMC	UMK	CSK	PK/PV	PK	UI2120G	EMP401	EMP402	SG8030J	SMK	Accessories	Before Using a Stepping Motor
	AS	AS PLUS	ASC	RK	CRK II	CSK	PMC	UMK	CSK	PK/PV	PK	UI2120G	EMP401	EMP402	SG8030J	SMK	Accessories	Before Using a Stepping Motor
	AS	AS PLUS	ASC	RK	CRK II	CSK	PMC	UMK	CSK	PK/PV	PK	UI2120G	EMP401	EMP402	SG8030J	SMK	Accessories	Before Using a Stepping Motor
	AS	AS PLUS	ASC	RK	CRK II	CSK	PMC	UMK	CSK	PK/PV	PK	UI2120G	EMP401	EMP402	SG8030J	SMK	Accessories	Before Using a Stepping Motor
	AS	AS PLUS	ASC	RK	CRK II	CSK	PMC	UMK	CSK	PK/PV	PK	UI2120G	EMP401	EMP402	SG8030J	SMK	Accessories	Before Using a Stepping Motor
	AS	AS PLUS	ASC	RK	CRK II	CSK	PMC	UMK	CSK	PK/PV	PK	UI2120G	EMP401	EMP402	SG8030J	SMK	Accessories	Before Using a Stepping Motor
	AS	AS PLUS	ASC	RK	CRK II	CSK	PMC	UMK	CSK	PK/PV	PK	UI2120G	EMP401	EMP402	SG8030J	SMK	Accessories	Before Using a Stepping Motor
	AS	AS PLUS	ASC	RK	CRK II	CSK	PMC	UMK	CSK	PK/PV	PK	UI2120G	EMP401	EMP402	SG8030J	SMK	Accessories	Before Using a Stepping Motor
	AS	AS PLUS	ASC	RK	CRK II	CSK	PMC	UMK	CSK	PK/PV	PK	UI2120G	EMP401	EMP402	SG8030J	SMK	Accessories	Before Using a Stepping Motor
	AS	AS PLUS	ASC	RK	CRK II	CSK	PMC	UMK	CSK	PK/PV	PK	UI2120G	EMP401	EMP402	SG8030J	SMK	Accessories	Before Using a Stepping Motor

1.65 in. (42 mm)

Step Angle 1.8°

PK Series High Torque Type



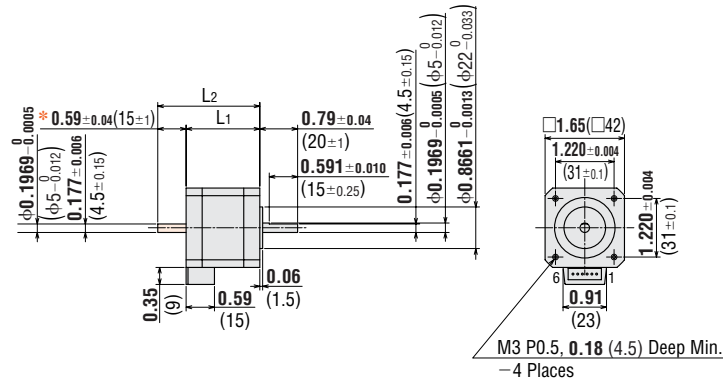
Specifications

Model	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance per Phase Ω/phase	Inductance mH/phase	Rotor Inertia J		Lead Wires (Pins)
		oz-in	N-m					oz-in ²	kg-m ²	
PK244PA	Bipolar (Series)	68	0.48	0.85	6.8	8	15.6	0.31	57×10 ⁻⁷	6
PK244PB	Unipolar	55	0.39	1.2	4.8	4	3.9			
PK246PA	Bipolar (Series)	132	0.93	0.85	10	12	26	0.62	114×10 ⁻⁷	6
PK246PB	Unipolar	106	0.75	1.2	7.2	6	6.5			

How to Read Specifications → Page C-9

Motor Wiring Diagrams → Page C-189

Dimensions Scale 1/4, Unit = inch (mm)



- * The length of machining on double shaft model is 0.591 ± 0.010 (15 ± 0.25).
- These dimensions are for double shaft models. For single shaft models, ignore the shaded area.

Applicable Connector

The following housing and contacts must be purchased separately.

Housing: 51103-0600 (MOLEX, Positive Lock Type) or

51102-0600 (MOLEX, Friction Lock Type)

Contact: 50351-8100 (MOLEX)

Connector Assembly Tool: 57295-5000 (MOLEX)

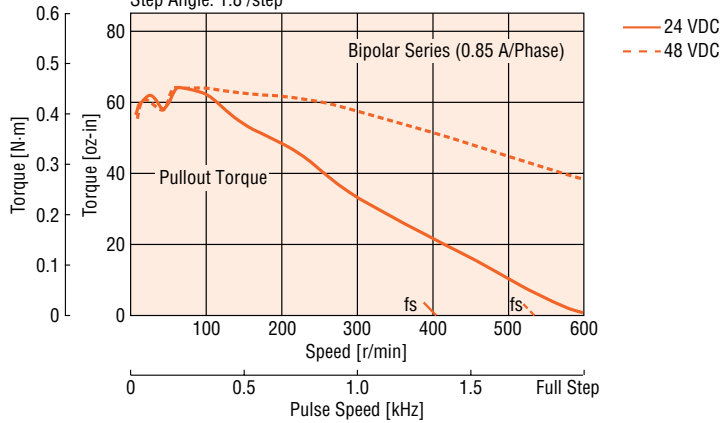
Model	L1 inch (mm)	L2 inch (mm)	Weight lb. (kg)	DXF
PK244PA	1.54 (39)	—	0.66 (0.3)	B331
PK244PB		2.13 (54)		
PK246PA	2.32 (59)	—	1.1 (0.5)	B332
PK246PB		2.91 (74)		

Speed-Torque Characteristics

How to Read Speed-Torque Characteristics → Page C-10

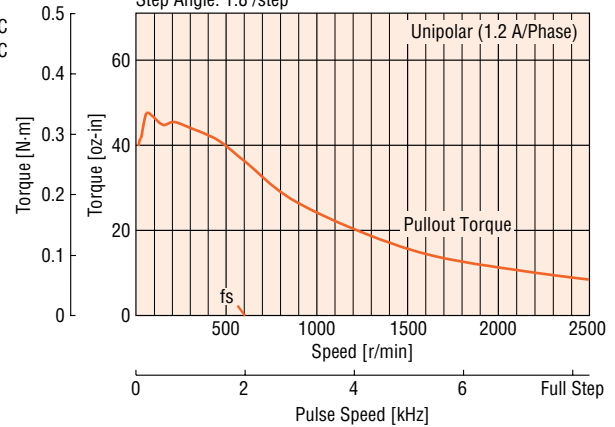
PK244PB Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



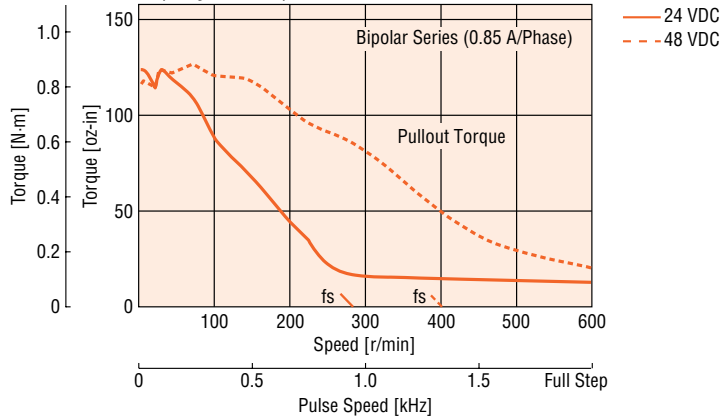
PK244PB Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



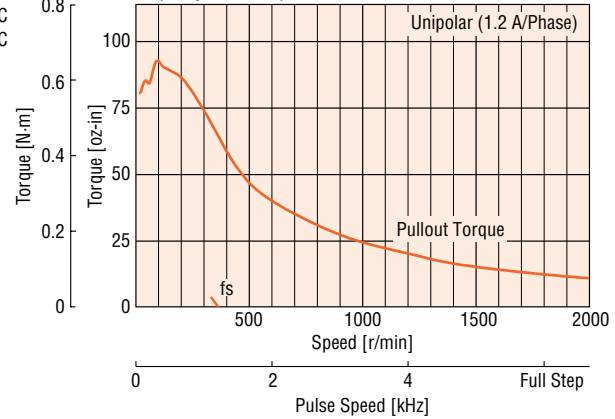
PK246PB Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



PK246PB Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



Motor Cables (Sold separately)

These cables make it easy to connect the high torque type motor. The crimped connectors eliminate the need for assembly. There are two cable lengths to choose from.

Model	Cable Length		Number of Leads	Lead Specifications	
	feet	(m)		UL Style No.	AWG No.
LC2U06B	2	(0.6)	6 Leads	3265	24
LC2U10B	3.3	(1)			



Introduction	AS	AS PLUS	ASC	RK	CRK II	CSK	PMC	UMK	CSK	PK/PV	PK	UI2120G	EMP401	EMP402	SG8030J	SMK	Accessories	Before Using a Stepping Motor
	AS	AS PLUS	ASC	RK	CRK II	CSK	PMC	UMK	CSK	PK/PV	PK	UI2120G	EMP401	EMP402	SG8030J	SMK	Accessories	Before Using a Stepping Motor
	AS	AS PLUS	ASC	RK	CRK II	CSK	PMC	UMK	CSK	PK/PV	PK	UI2120G	EMP401	EMP402	SG8030J	SMK	Accessories	Before Using a Stepping Motor

□ 1.65 in. (□ 42 mm)

Step Angle 1.8°

PK Series Standard Type



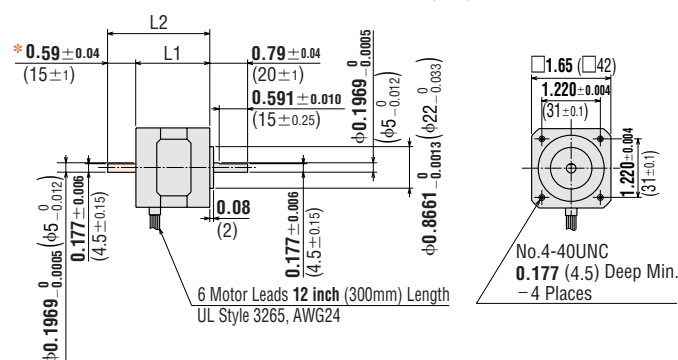
Specifications

Model	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance per Phase Ω/phase	Inductance mH/phase	Rotor Inertia J		Lead Wires	Corresponding AC/DC-Input Motor & Driver Package
		oz-in	N·m					oz-in ²	kg·m ²		
PK243-01AA	Bipolar (Series)	28	0.2	0.67	5.6	8.4	10	0.191	35×10 ⁻⁷	6	UMK243□A/ CSK243-□TA
PK243-01BA	Unipolar	22	0.16	0.95	4	4.2	2.5				
PK243-02AA	Bipolar (Series)	28	0.2	0.28	13	48	60	0.191	35×10 ⁻⁷	6	—
PK243-02BA	Unipolar	22	0.16	0.4	9.6	24	15				
PK243-03AA	Bipolar (Series)	28	0.2	0.22	17	77	84	0.191	35×10 ⁻⁷	6	—
PK243-03BA	Unipolar	22	0.16	0.31	12	38.5	21				
PK244-01AA	Bipolar (Series)	46	0.33	0.85	5.6	6.6	12.8	0.3	54×10 ⁻⁷	6	UMK244□A/ CSK244-□TA
PK244-01BA	Unipolar	36	0.26	1.2	4	3.3	3.2				
PK244-02AA	Bipolar (Series)	46	0.33	0.57	8.6	15	26.8	0.3	54×10 ⁻⁷	6	—
PK244-02BA	Unipolar	36	0.26	0.8	6	7.5	6.7				
PK244-03AA	Bipolar (Series)	46	0.33	0.28	17	60	120	0.3	54×10 ⁻⁷	6	—
PK244-03BA	Unipolar	36	0.26	0.4	12	30	30				
PK244-04AA	Bipolar (Series)	46	0.33	0.14	34	240	428	0.3	54×10 ⁻⁷	6	—
PK244-04BA	Unipolar	36	0.26	0.2	24	120	107				
PK245-01AA	Bipolar (Series)	61	0.43	0.85	5.6	6.6	11.2	0.37	68×10 ⁻⁷	6	UMK245□A/ CSK245-□TA
PK245-01BA	Unipolar	45	0.32	1.2	4	3.3	2.8				
PK245-02AA	Bipolar (Series)	61	0.43	0.57	8.6	15	28.4	0.37	68×10 ⁻⁷	6	—
PK245-02BA	Unipolar	45	0.32	0.8	6	7.5	7.1				
PK245-03AA	Bipolar (Series)	61	0.43	0.28	17	60	100	0.37	68×10 ⁻⁷	6	—
PK245-03BA	Unipolar	45	0.32	0.4	12	30	25				

How to Read Specifications → Page C-9

Motor Wiring Diagrams → Page C-189

Dimensions Scale 1/4, Unit = inch (mm)



- * The length of machining on double shaft model is 0.591±0.010 (15±0.25).
- These dimensions are for double shaft models. For single shaft models, ignore the shaded area.

Model	L1 inch (mm)	L2 inch (mm)	Weight lb. (kg)	DXF
PK243-0□AA	1.30 (33)	—	0.46 (0.21)	B081U
PK243-0□BA		1.89 (48)		
PK244-0□AA	1.54 (39)	—	0.59 (0.27)	B082U
PK244-0□BA		2.13 (54)		
PK245-0□AA	1.85 (47)	—	0.77 (0.35)	B083U
PK245-0□BA		2.44 (62)		

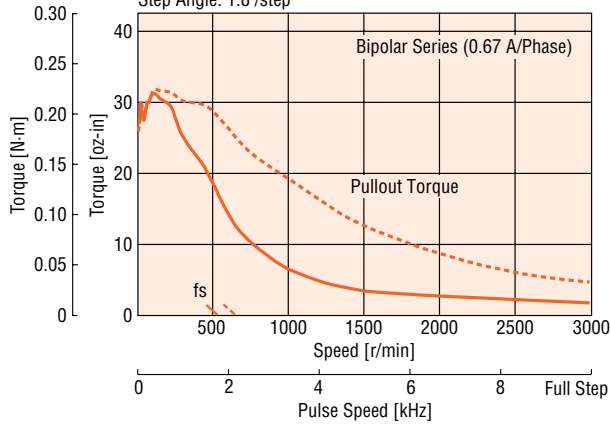
- Enter the winding specification in the box (□) within the model number.

Speed-Torque Characteristics

How to Read Speed-Torque Characteristics → Page C-10

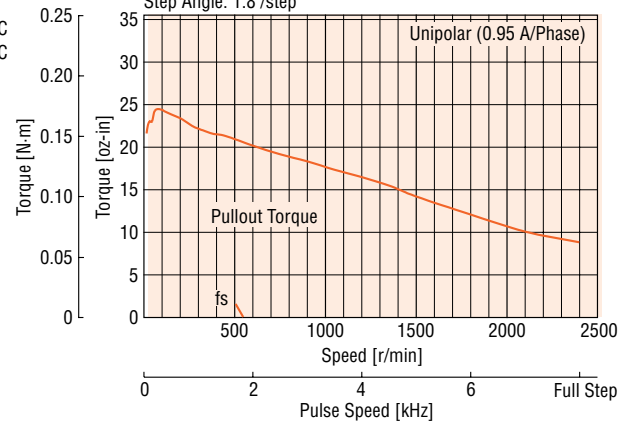
PK243-01BA Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



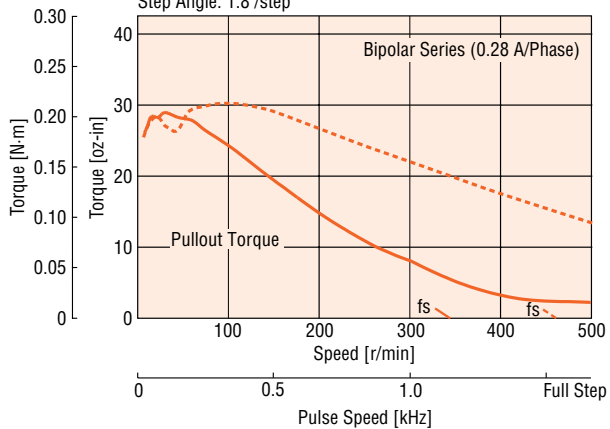
PK243-01BA Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



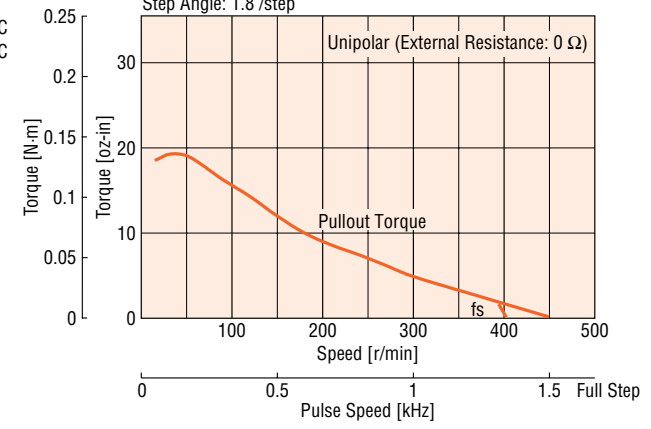
PK243-02BA Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



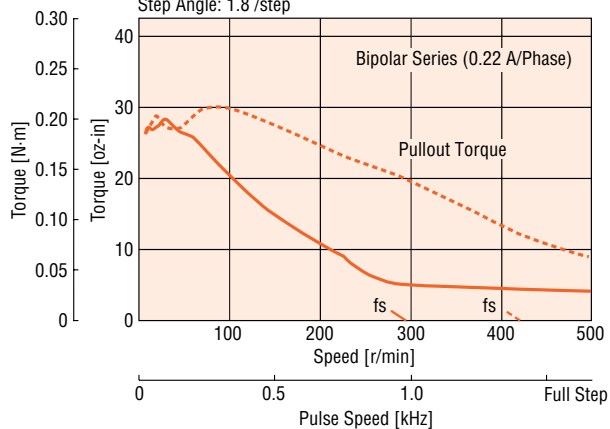
PK243-02BA Unipolar

Power Input: 11.5 VDC Unipolar Constant Voltage Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



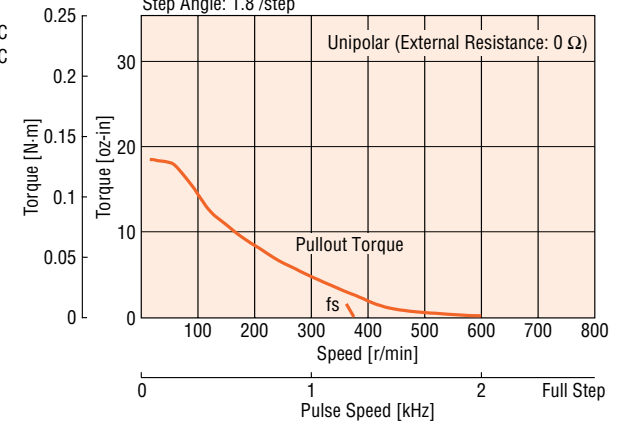
PK243-03BA Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



PK243-03BA Unipolar

Power Input: 13.6 VDC Unipolar Constant Voltage Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step

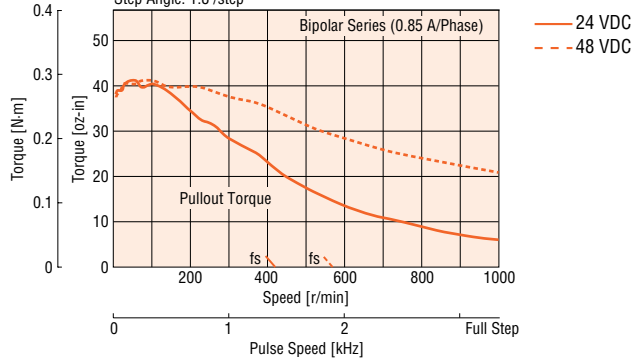


Speed-Torque Characteristics

How to Read Speed-Torque Characteristics → Page C-10

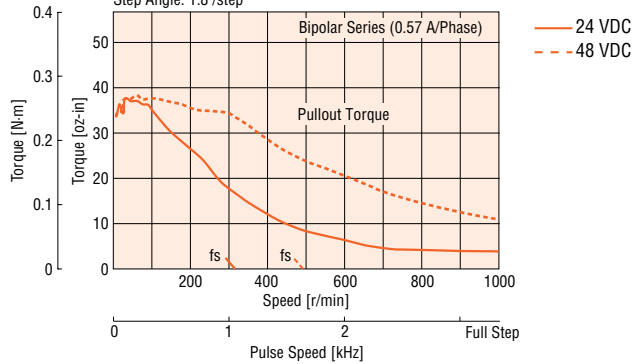
● PK244-01BA Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



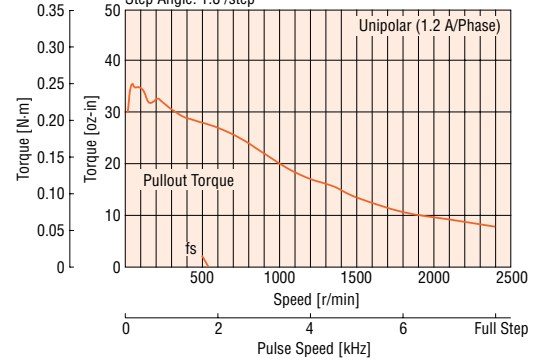
● PK244-02BA Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



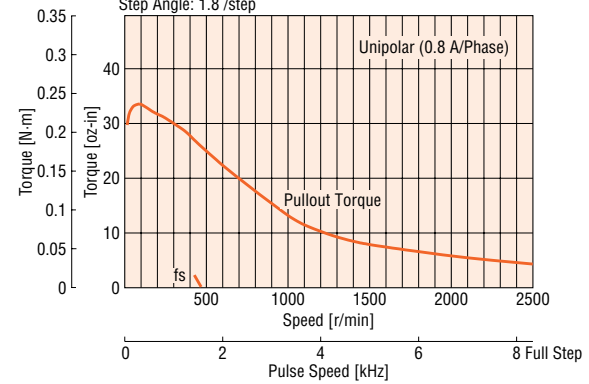
● PK244-01BA Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



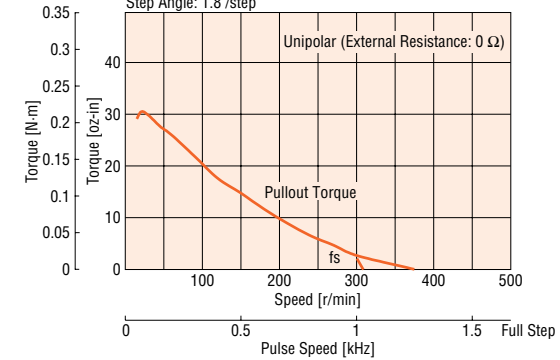
● PK244-02BA Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



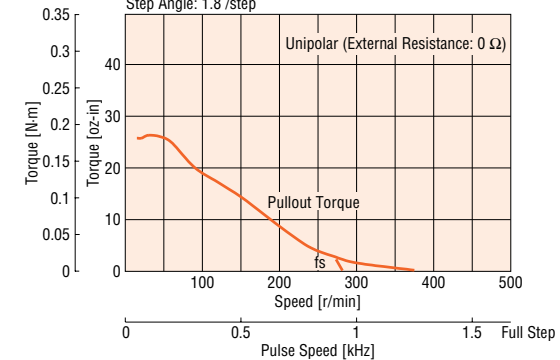
● PK244-03BA Unipolar

Power Input: 13.7 VDC Unipolar Constant Voltage Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step

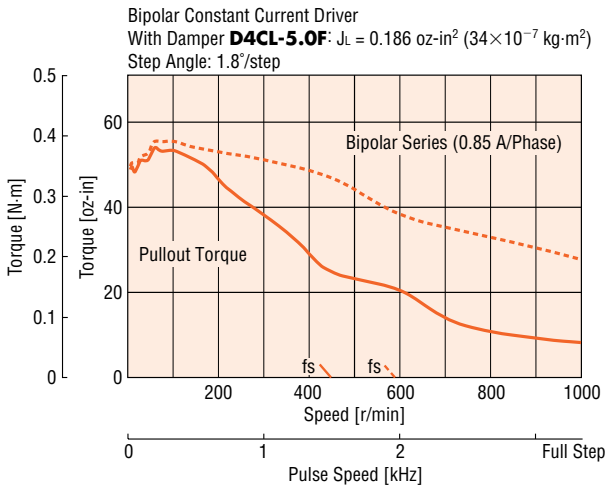


● PK244-04BA Unipolar

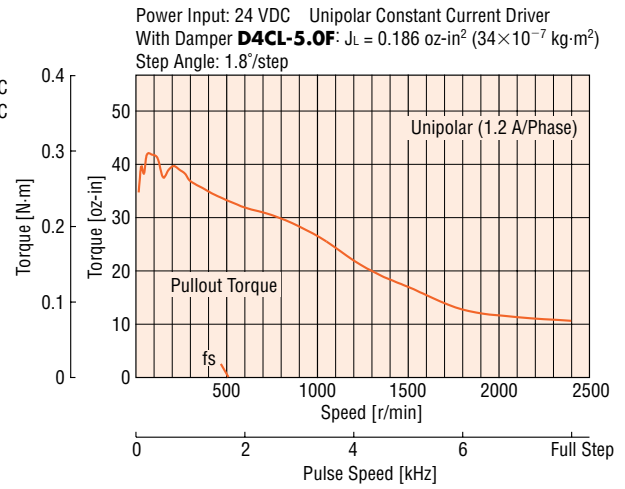
Power Input: 25.5 VDC Unipolar Constant Voltage Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



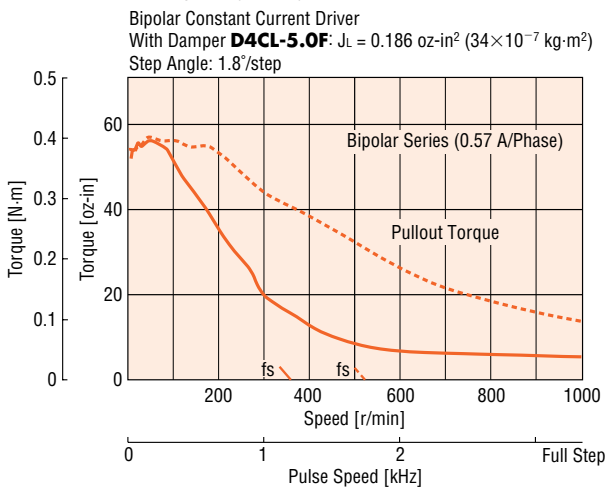
● PK245-01BA Bipolar (Series)



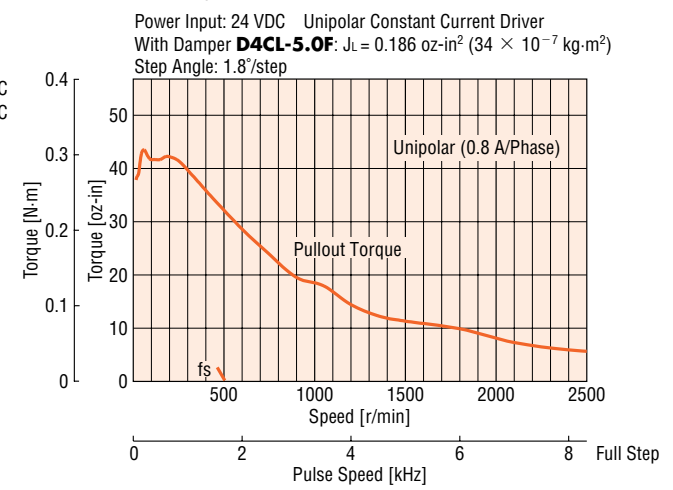
● PK245-01BA Unipolar



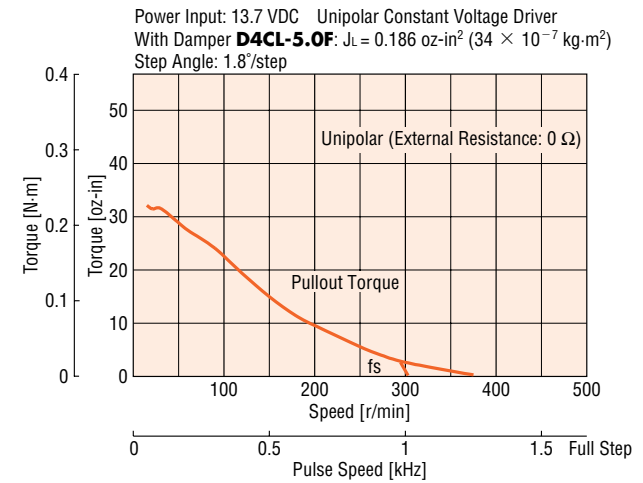
● PK245-02BA Bipolar (Series)



● PK245-02BA Unipolar



● PK245-03BA Unipolar



Introduction	AS	AS PLUS	ASC	RK	CRK II	CSK	PMC	UMK	CSK	2-Phase Stepping Motors	Encoder without Encoder	Encoder with Encoder	PK	UI2120G	EMP401	EMP402	SG8030J	Controllers	Low-Speed Synchronous Motors	Accessories	Before Using a Stepping Motor

1.65 in. (42 mm)

Step Angle 0.9°

PK Series High Resolution Type



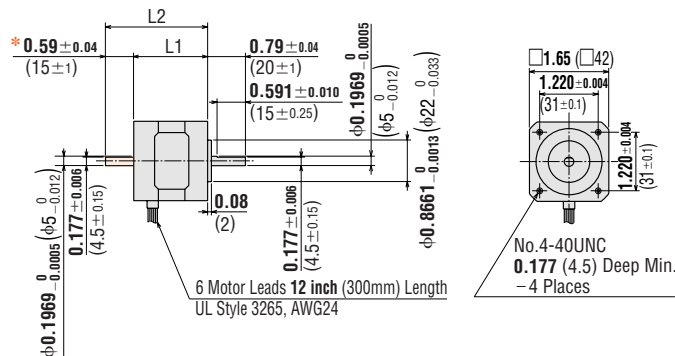
Specifications

Model	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance per Phase Ω/phase	Inductance mH/phase	Rotor Inertia J		Lead Wires	Corresponding AC/DC-Input Motor & Driver Package
		oz-in	N·m					oz-in ²	kg·m ²		
PK243M-01AA	Bipolar (Series)	28	0.2	0.67	5.6	8.4	15.2	0.191	35×10 ⁻⁷	6	UMK243M□A/ CSK243M-□TA
PK243M-01BA	Unipolar	22	0.16	0.95	4	4.2	3.8				
PK243M-02AA	Bipolar (Series)	28	0.2	0.42	8.4	20	38.8	0.191	35×10 ⁻⁷	6	—
PK243M-02BA	Unipolar	22	0.16	0.6	6	10	9.7				
PK243M-03AA	Bipolar (Series)	28	0.2	0.22	17	77	136	0.191	35×10 ⁻⁷	6	—
PK243M-03BA	Unipolar	22	0.16	0.31	12	38.5	34				
PK244M-01AA	Bipolar (Series)	44	0.31	0.85	5.6	6.6	17.2	0.3	54×10 ⁻⁷	6	UMK244M□A/ CSK244M-□TA
PK244M-01BA	Unipolar	36	0.26	1.2	4	3.3	4.3				
PK244M-02AA	Bipolar (Series)	44	0.31	0.57	8.6	15	38.8	0.3	54×10 ⁻⁷	6	—
PK244M-02BA	Unipolar	36	0.26	0.8	6	7.5	9.7				
PK244M-03AA	Bipolar (Series)	44	0.31	0.28	17	60	152	0.3	54×10 ⁻⁷	6	—
PK244M-03BA	Unipolar	36	0.26	0.4	12	30	38				
PK245M-01AA	Bipolar (Series)	53	0.38	0.85	5.6	6.6	15.6	0.37	68×10 ⁻⁷	6	UMK245M□A/ CSK245M-□TA
PK245M-01BA	Unipolar	45	0.32	1.2	4	3.3	3.9				
PK245M-02AA	Bipolar (Series)	53	0.38	0.57	8.6	15	39.6	0.37	68×10 ⁻⁷	6	—
PK245M-02BA	Unipolar	45	0.32	0.8	6	7.5	9.9				
PK245M-03AA	Bipolar (Series)	53	0.38	0.28	17	60	128	0.37	68×10 ⁻⁷	6	—
PK245M-03BA	Unipolar	45	0.32	0.4	12	30	32				

How to Read Specifications → Page C-9

Motor Wiring Diagrams → Page C-189

Dimensions Scale 1/4, Unit = inch (mm)



* The length of machining on double shaft model is 0.591 ± 0.010 (15 ± 0.25).

• These dimensions are for double shaft models. For single shaft models, ignore the shaded area.

Model	L1 inch (mm)	L2 inch (mm)	Weight lb. (kg)	DXF
PK243M-0□AA	1.30 (33)	—	0.53 (0.24)	B081U
PK243M-0□BA	—	1.89 (48)		
PK244M-0□AA	1.54 (39)	—	0.66 (0.3)	B082U
PK244M-0□BA	—	2.13 (54)		
PK245M-0□AA	1.85 (47)	—	0.81 (0.37)	B083U
PK245M-0□BA	—	2.44 (62)		

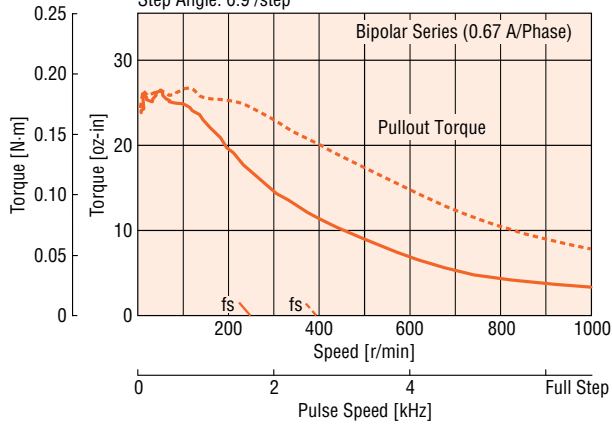
• Enter the winding specification in the box (□) within the model number.

Speed-Torque Characteristics

How to Read Speed-Torque Characteristics → Page C-10

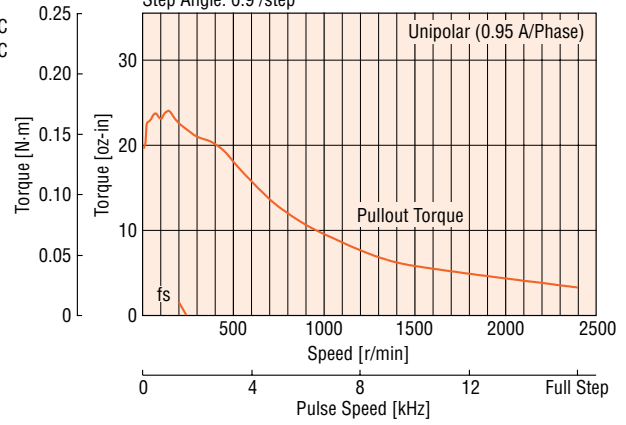
● PK243M-01BA Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2$ ($34 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: $0.9^\circ/\text{step}$



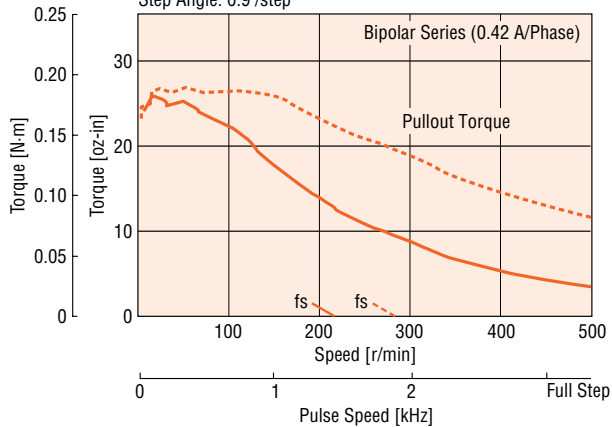
● PK243M-01BA Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2$ ($34 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: $0.9^\circ/\text{step}$



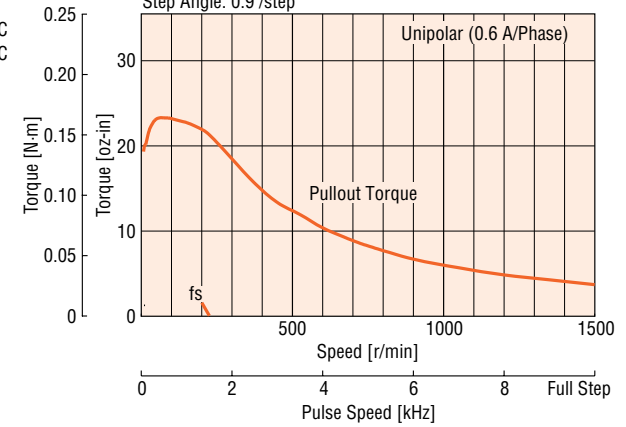
● PK243M-02BA Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2$ ($34 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: $0.9^\circ/\text{step}$



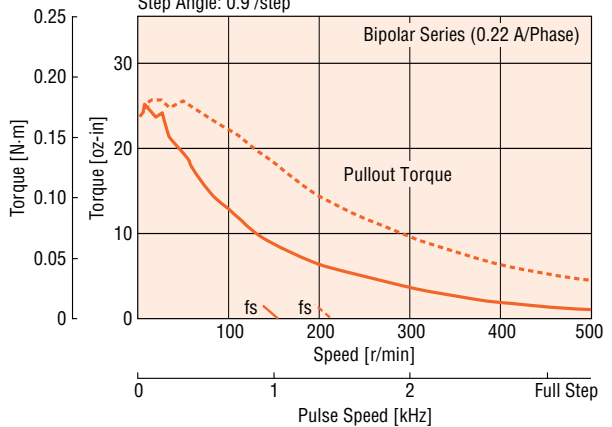
● PK243M-02BA Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2$ ($34 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: $0.9^\circ/\text{step}$



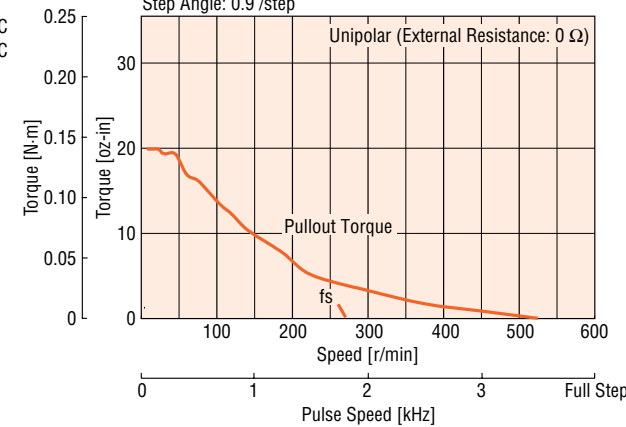
● PK243M-03BA Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2$ ($34 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: $0.9^\circ/\text{step}$



● PK243M-03BA Unipolar

Power Input: 13.5 VDC Unipolar Constant Voltage Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2$ ($34 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: $0.9^\circ/\text{step}$

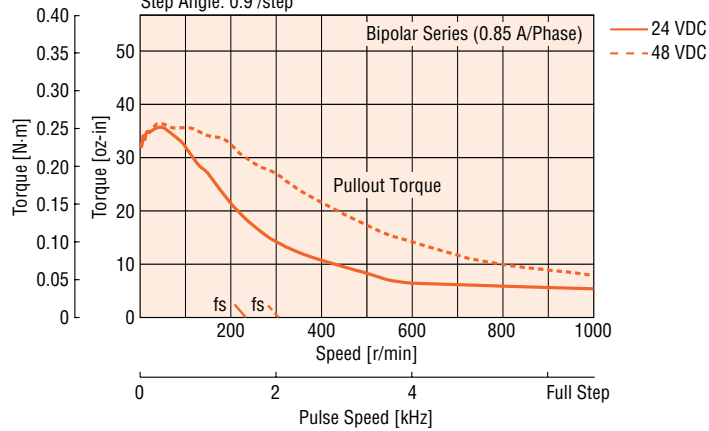


Speed-Torque Characteristics

How to Read Speed-Torque Characteristics → Page C-10

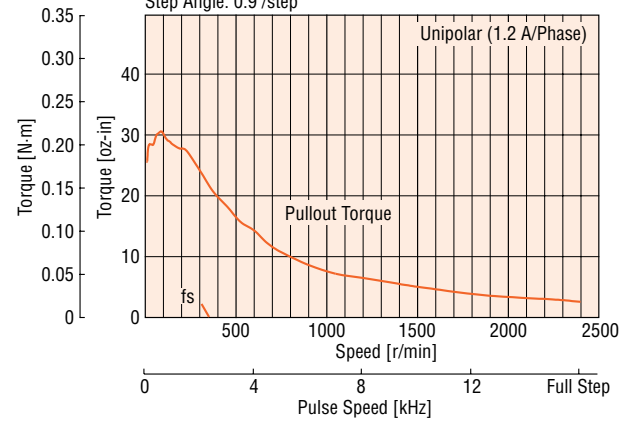
PK244M-01BA Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



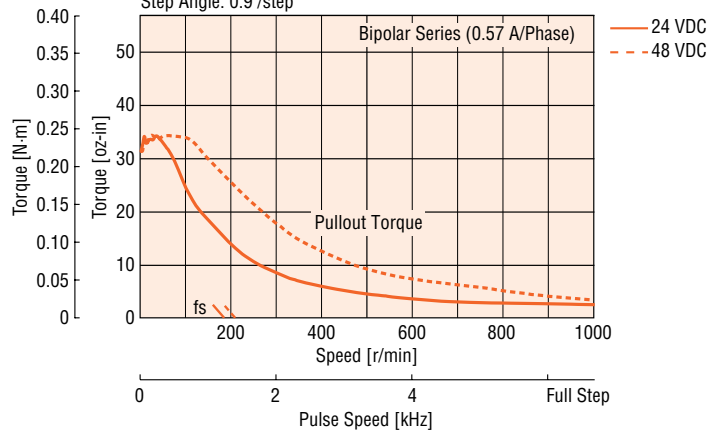
PK244M-01BA Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



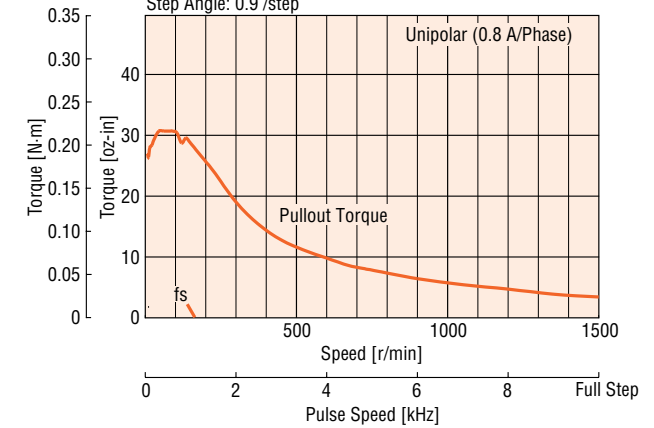
PK244M-02BA Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



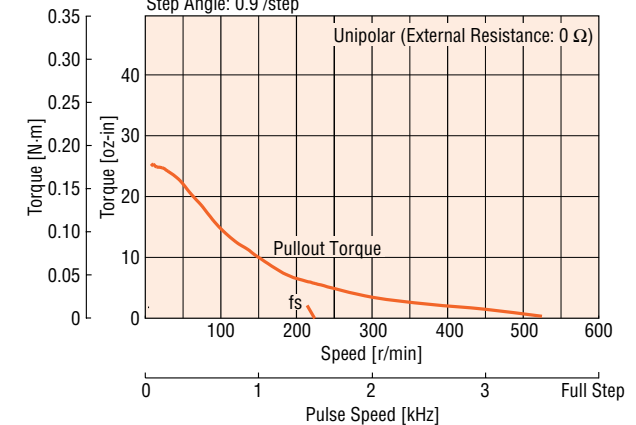
PK244M-02BA Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



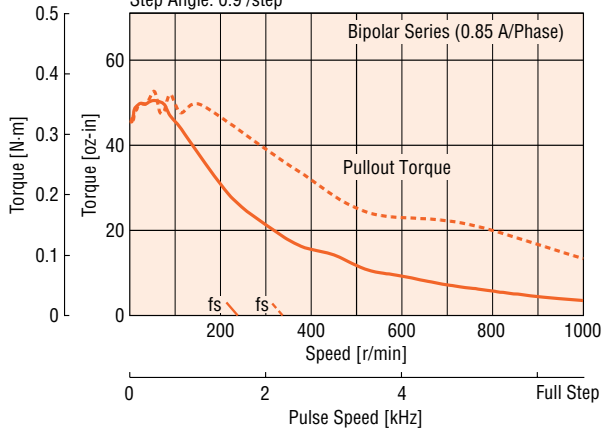
PK244M-03BA Unipolar

Power Input: 13.5 VDC Unipolar Constant Voltage Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



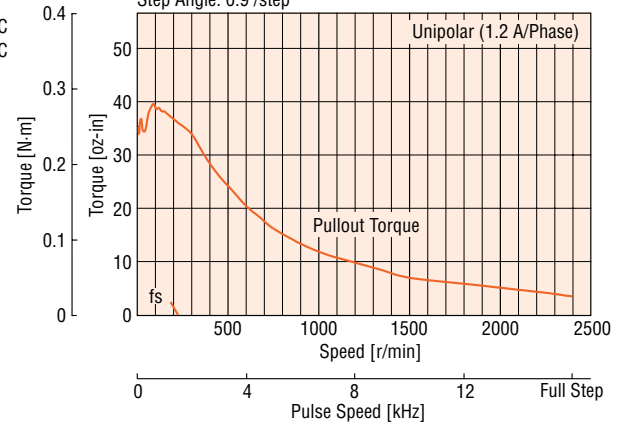
● **PK245M-01BA** Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



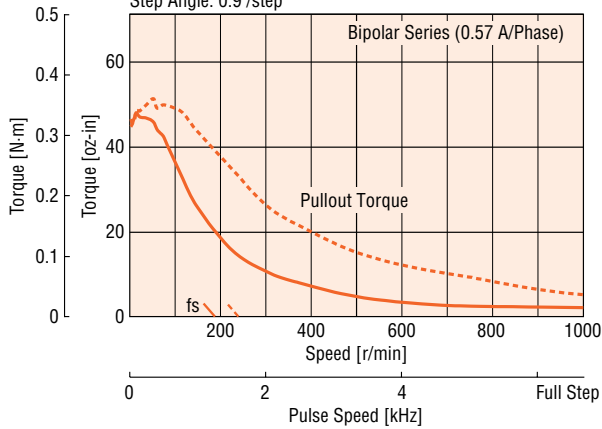
● **PK245M-01BA** Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



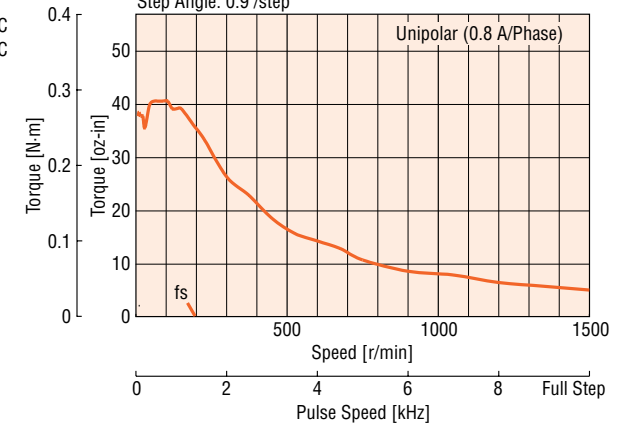
● **PK245M-02BA** Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



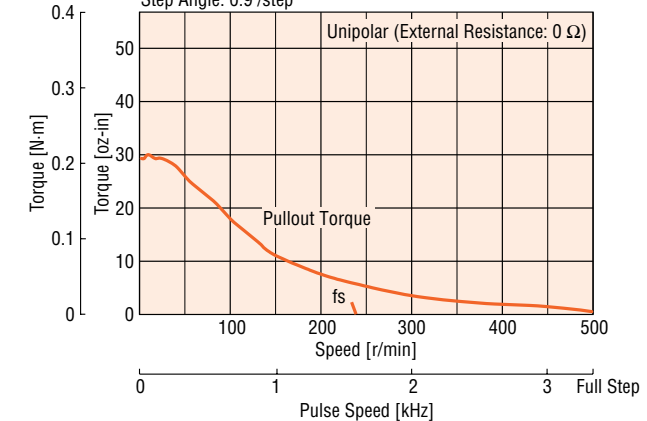
● **PK245M-02BA** Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



● **PK245M-03BA** Unipolar

Power Input: 13.5 VDC Unipolar Constant Voltage Driver
With Damper **D4CL-5.0F**: $J_L = 0.186 \text{ oz-in}^2 (34 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



1.65 in. (42 mm)

PK Series SH Geared Type



Specifications

Motor Specifications

Model	Connection Type	Current per Phase	Voltage	Resistance per Phase	Inductance	Rotor Inertia J		Lead Wires	Corresponding DC-Input Motor & Driver Package
						oz-in ²	kg-m ²		
PK243A1A-SG□	Bipolar (Series)	0.67	5.6	8.4	10	0.191	35×10 ⁻⁷	6	CSK243□TA-SG□
PK243B1A-SG□	Unipolar	0.95	4.0	4.2	2.5				
PK243A2A-SG□	Bipolar (Series)	0.28	13	48	60	0.191	35×10 ⁻⁷	6	—
PK243B2A-SG□	Unipolar	0.4	9.6	24	15				

How to Read Specifications → Page C-9

Motor Wiring Diagrams → Page C-189

- Enter the gear ratio in the box (□) within the model number.

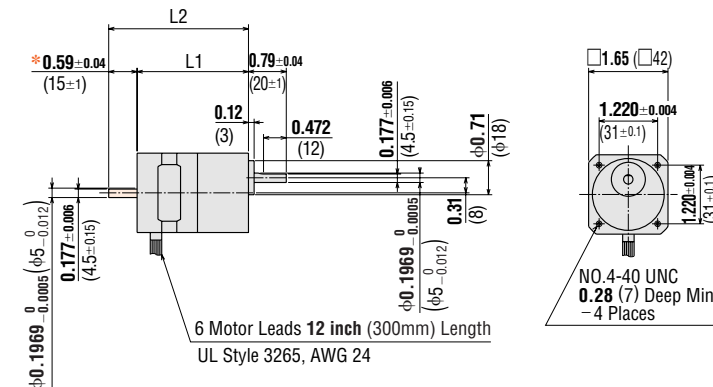
Gearmotor Specifications

Model	Gear Ratio	Holding Torque*		Step Angle	Permissible Speed
		lb-in	N-m		
PK243A1A-SG3.6, PK243A2A-SG3.6 PK243B1A-SG3.6, PK243B2A-SG3.6	3.6:1	1.77	0.2	0.5°	500
PK243A1A-SG7.2, PK243A2A-SG7.2 PK243B1A-SG7.2, PK243B2A-SG7.2	7.2:1	3.5	0.4	0.25°	250
PK243A1A-SG9, PK243A2A-SG9 PK243B1A-SG9, PK243B2A-SG9	9:1	4.4	0.5	0.2°	200
PK243A1A-SG10, PK243A2A-SG10 PK243B1A-SG10, PK243B2A-SG10	10:1	4.9	0.56	0.18°	180
PK243A1A-SG18, PK243A2A-SG18 PK243B1A-SG18, PK243B2A-SG18	18:1	7.0	0.8	0.1°	100
PK243A1A-SG36, PK243A2A-SG36 PK243B1A-SG36, PK243B2A-SG36	36:1	7.0	0.8	0.05°	50

* Holding torque is the same regardless of the connection type, due to the permissible torque limit of the gearhead.

Dimensions

Scale 1/4, Unit = inch (mm)



- * The length of machining on double shaft model is 0.591±0.010 (15±0.25).
- These dimensions are for double shaft models. For single shaft models, ignore the shaded area.

Model	L1 inch (mm)	L2 inch (mm)	Weight lb. (kg)	DXF
PK243A□A-SG□	2.32 (59)	—	0.77 (0.35)	B091U
PK243B□A-SG□		2.91 (74)		

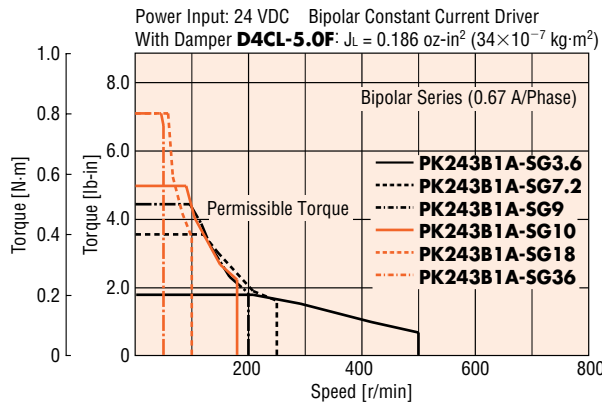
- Enter the winding specification in the box (□) within the model number.
- Enter the gear ratio in the box (□) within the model number.

Mounting Screws (included)
No.4-40 UNC 0.39 in. (10 mm)

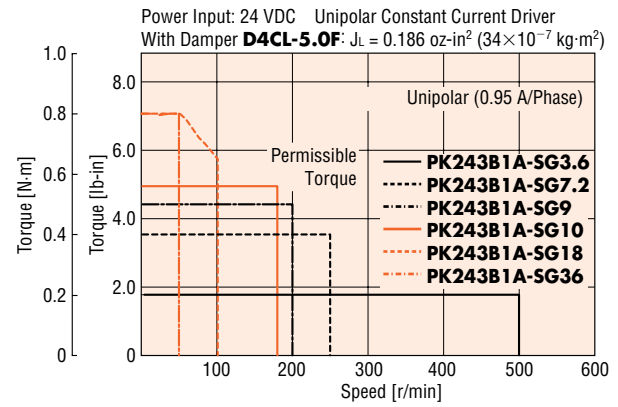
Speed-Torque Characteristics

How to Read Speed-Torque Characteristics → Page C-10

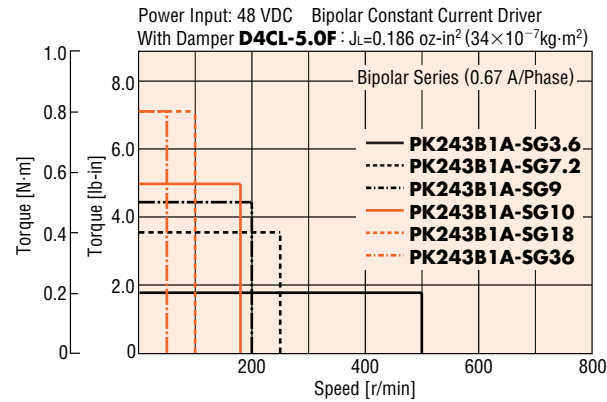
● **PK243B1A-SG** □ Bipolar (Series) 24 VDC



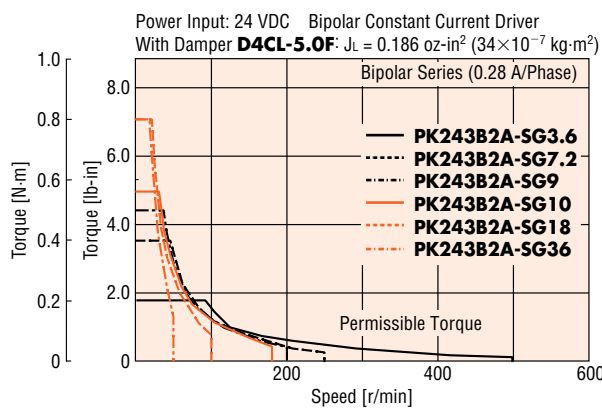
● **PK243B1A-SG** □ Unipolar



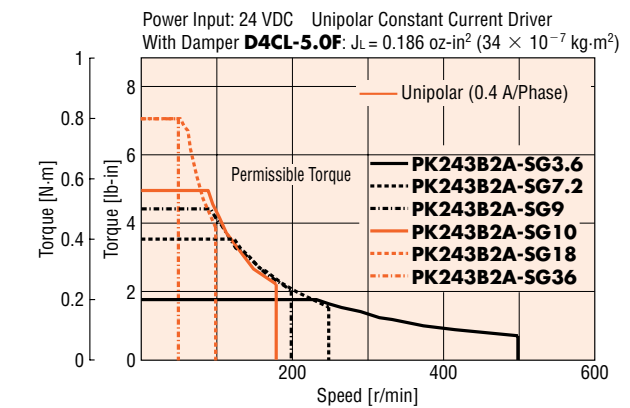
● **PK243B1A-SG** □ Bipolar (Series) 48 VDC



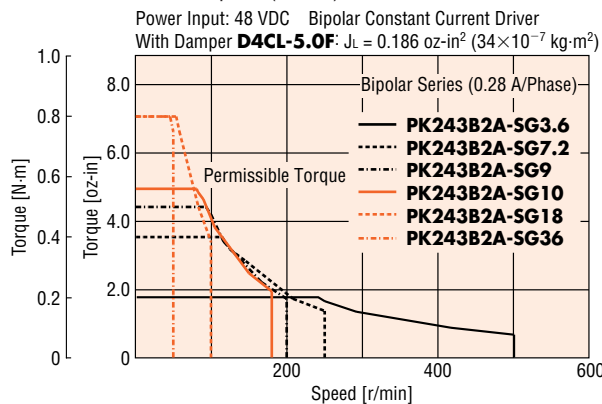
● **PK243B2A-SG** □ Bipolar (Series) 24 VDC



● **PK243B2A-SG** □ Unipolar



● **PK243B2A-SG** □ Bipolar (Series) 48 VDC



Introduction	AS	AS PLUS	ASC	RK	CRK II	CSK	PMC	UMK	CSK	PK/PV	PK	UI2120G	EMP401	EMP402	SG8030J	SMK	Accessories	Before Using a Stepping Motor

2.22 in. (56.4 mm)

Step Angle 1.8°

PK Series Standard Type



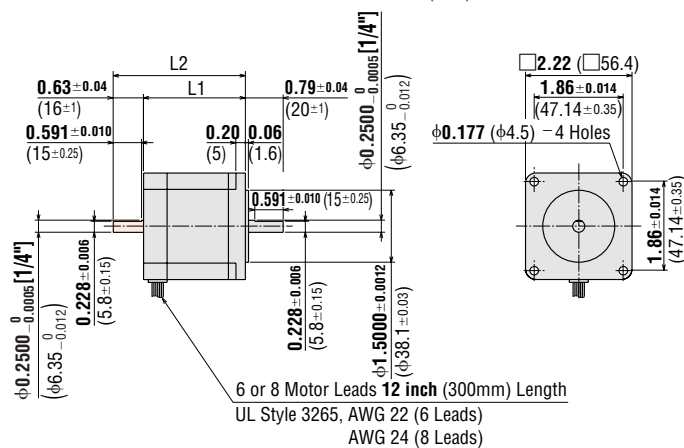
Specifications

Model	Connection Type	Holding Torque		Current per Phase	Voltage	Resistance per Phase	Inductance	Rotor Inertia J		Lead Wires	Corresponding AC/DC-Input Motor & Driver Package
		oz-in	N·m					oz-in ²	kg·m ²		
PK264-01A	Bipolar (Series)	68	0.48	0.71	8.1	11.4	21.6	0.66	120×10 ⁻⁷	6	—
PK264-01B	Unipolar	55	0.39	1	5.7	5.7	5.4				
PK264-02A	Bipolar (Series)	68	0.48	1.4	3.9	2.8	5.6	0.66	120×10 ⁻⁷	6	UMK264□A/CSK264-□TA
PK264-02B	Unipolar	55	0.39	2	2.8	1.4	1.4				
PK264-03A	Bipolar (Series)	68	0.48	2.1	2.6	1.26	2.4	0.66	120×10 ⁻⁷	6	—
PK264-03B	Unipolar	55	0.39	3	1.9	0.63	0.6				
PK264-E2.0A	Bipolar (Parallel)	68	0.48	2.8	1.96	0.7	1.4	0.66	120×10 ⁻⁷	8	—
PK264-E2.0B	Bipolar (Series)	68	0.48	1.4	3.9	2.8	5.6				
	Unipolar	55	0.39	2	2.8	1.4	1.4				
PK266-01A	Bipolar (Series)	166	1.17	0.71	11	14.8	40	1.64	300×10 ⁻⁷	6	—
PK266-01B	Unipolar	127	0.9	1	7.4	7.4	10				
PK266-02A	Bipolar (Series)	166	1.17	1.4	5	3.6	10	1.64	300×10 ⁻⁷	6	UMK266□A/CSK266-□TA
PK266-02B	Unipolar	127	0.9	2	3.6	1.8	2.5				
PK266-03A	Bipolar (Series)	166	1.17	2.1	3.2	1.5	4.4	1.64	300×10 ⁻⁷	6	—
PK266-03B	Unipolar	127	0.9	3	2.3	0.75	1.1				
PK266-E2.0A	Bipolar (Parallel)	166	1.17	2.8	2.52	0.9	2.5	1.64	300×10 ⁻⁷	8	—
PK266-E2.0B	Bipolar (Series)	166	1.17	1.4	5	3.6	10				
	Unipolar	127	0.9	2	3.6	1.8	2.5				
PK268-01A	Bipolar (Series)	240	1.75	0.71	12	17.2	56	2.6	480×10 ⁻⁷	6	—
PK268-01B	Unipolar	191	1.35	1	8.6	8.6	14				
PK268-02A	Bipolar (Series)	240	1.75	1.4	6.3	4.5	14.4	2.6	480×10 ⁻⁷	6	UMK268□A/CSK268-□TA
PK268-02B	Unipolar	191	1.35	2	4.5	2.25	3.6				
PK268-03A	Bipolar (Series)	240	1.75	2.1	4.2	2	6.4	2.6	480×10 ⁻⁷	6	—
PK268-03B	Unipolar	191	1.35	3	3	1	1.6				
PK268-E2.0A	Bipolar (Parallel)	240	1.75	2.8	3.16	1.13	3.6	2.6	480×10 ⁻⁷	8	—
PK268-E2.0B	Bipolar (Series)	240	1.75	1.4	6.3	4.5	14.4				
	Unipolar	191	1.35	2	4.5	2.25	3.6				

How to Read Specifications → Page C-9
Motor Wiring Diagrams → Page C-189

Dimensions

Scale 1/4, Unit = inch (mm)



Model	L1 inch (mm)	L2 inch (mm)	Weight lb. (kg)	DXF
PK264-0□A PK264-E2.0A	1.54 (39)	—	0.99 (0.45)	B084
PK264-0□B PK264-E2.0B		2.17 (55)		
PK266-0□A PK266-E2.0A	2.13 (54)	—	1.5 (0.7)	B085
PK266-0□B PK266-E2.0B		2.76 (70)		
PK268-0□A PK268-E2.0A	2.99 (76)	—	2.2 (1)	B086
PK268-0□B PK268-E2.0B		3.62 (92)		

• Enter the winding specification in the box (□) within the model number.

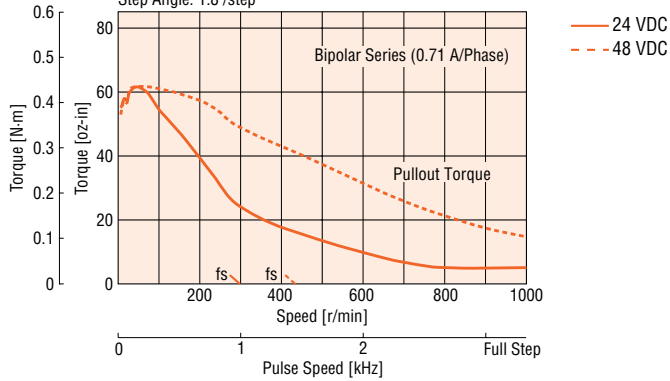
• These dimensions are for double shaft models. For single shaft models, ignore the shaded area.

Speed-Torque Characteristics

How to Read Speed-Torque Characteristics → Page C-10

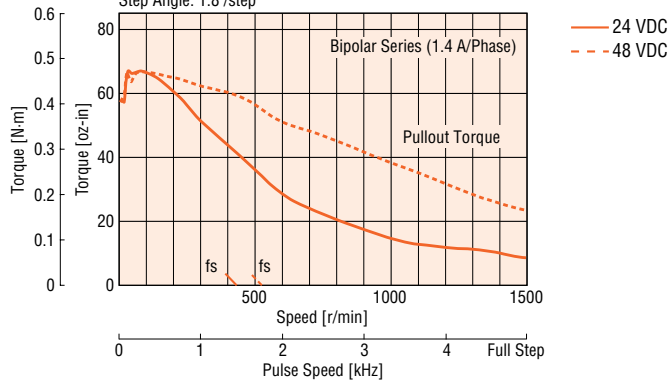
PK264-01B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



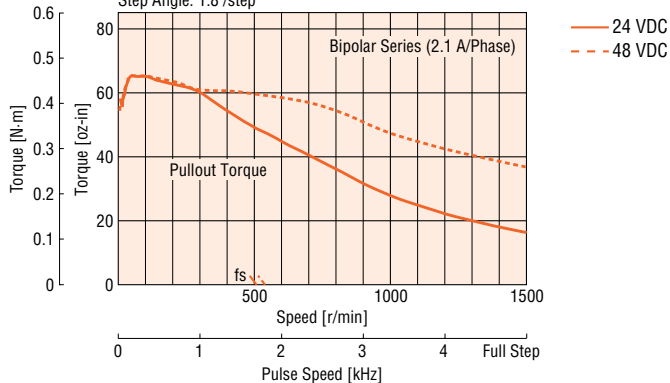
PK264-02B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



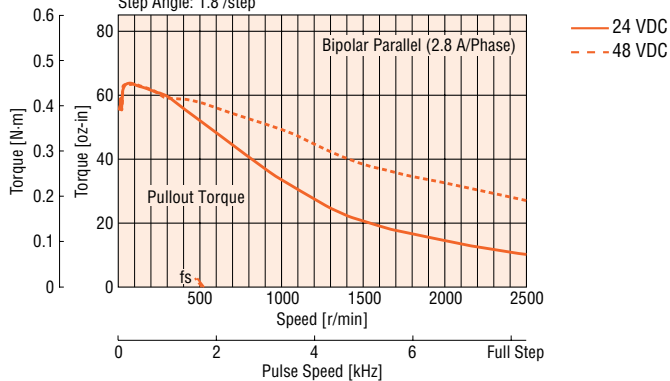
PK264-03B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



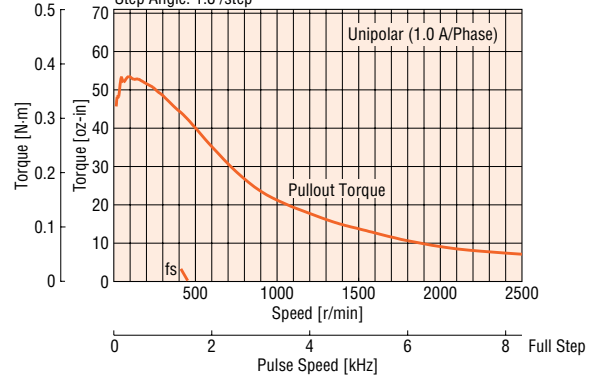
PK264-E2.0B Bipolar (Parallel)

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



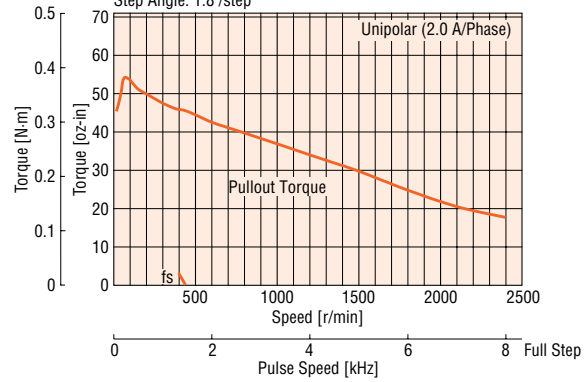
PK264-01B Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



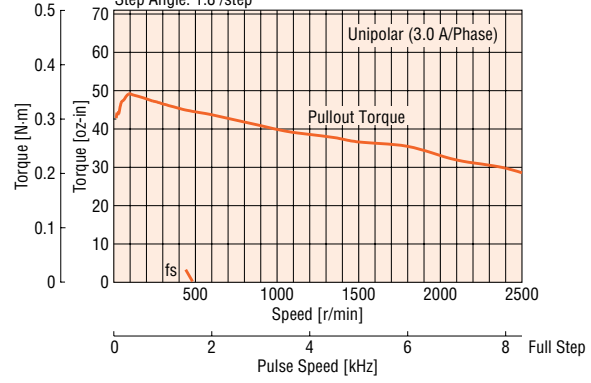
PK264-02B Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



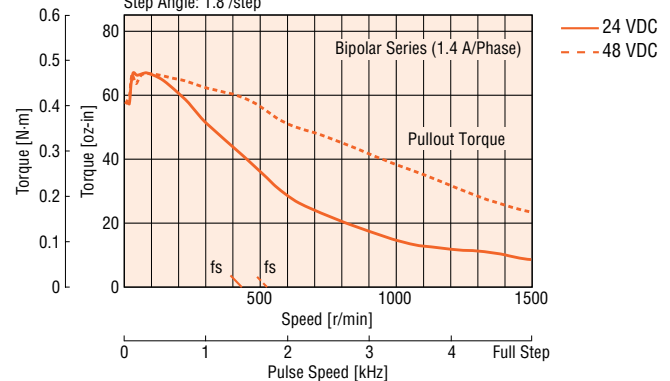
PK264-03B Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



PK264-E2.0B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$

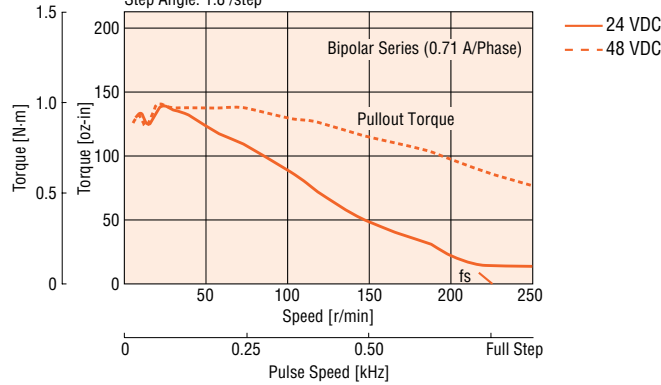


Speed-Torque Characteristics

How to Read Speed-Torque Characteristics → Page C-10

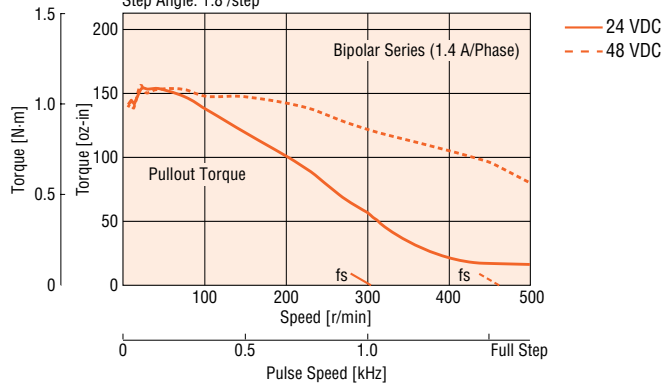
● PK266-01B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



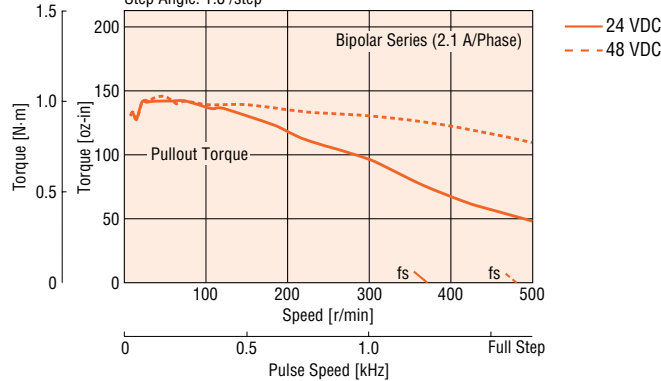
● PK266-02B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



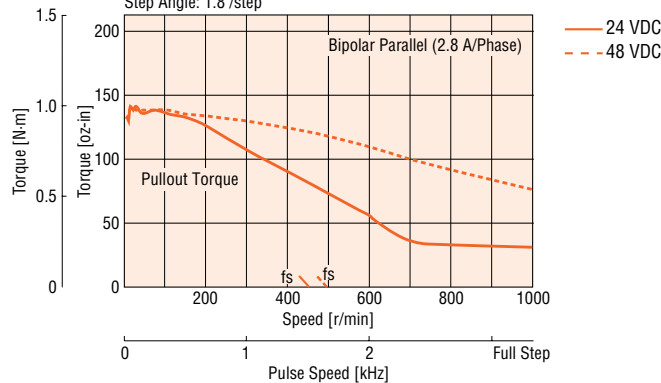
● PK266-03B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



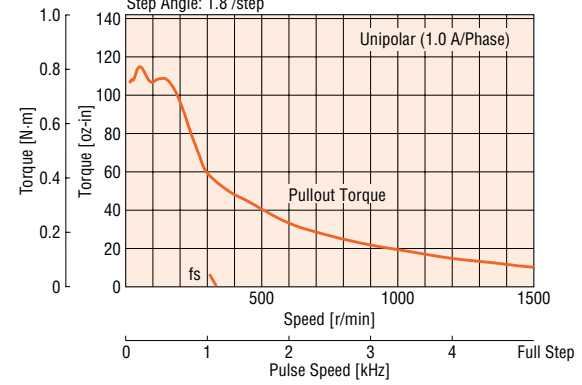
● PK266-E2.0B Bipolar (Parallel)

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



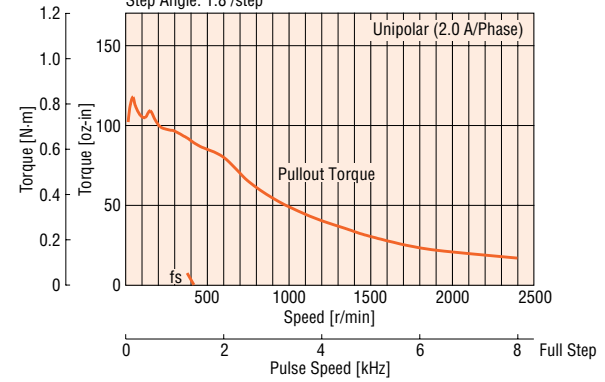
● PK266-01B Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



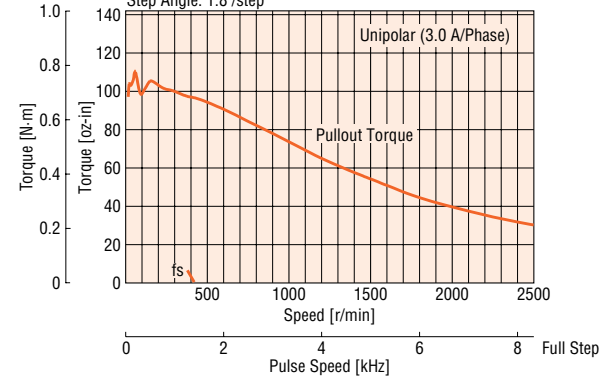
● PK266-02B Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



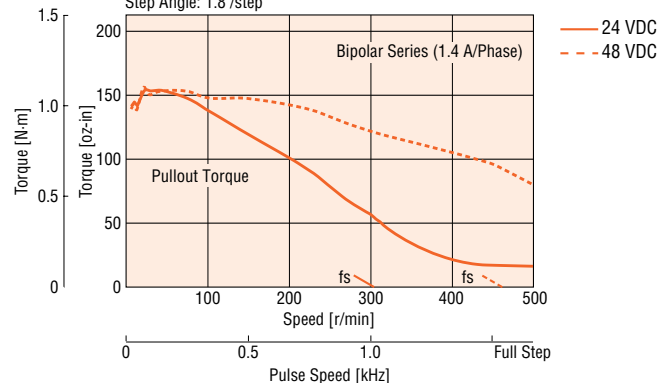
● PK266-03B Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



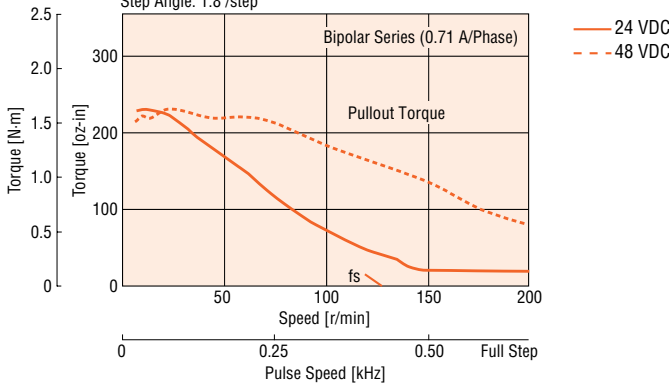
● PK266-E2.0B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



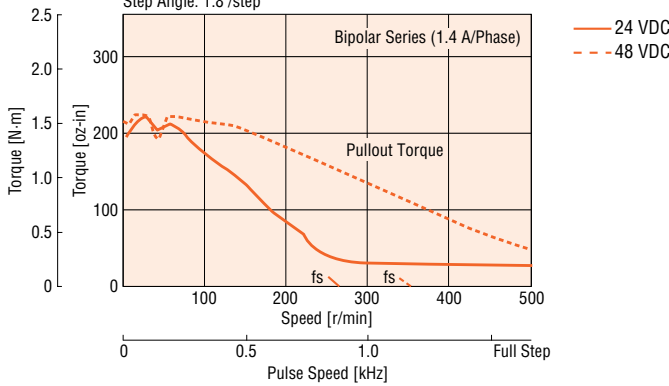
PK268-01B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



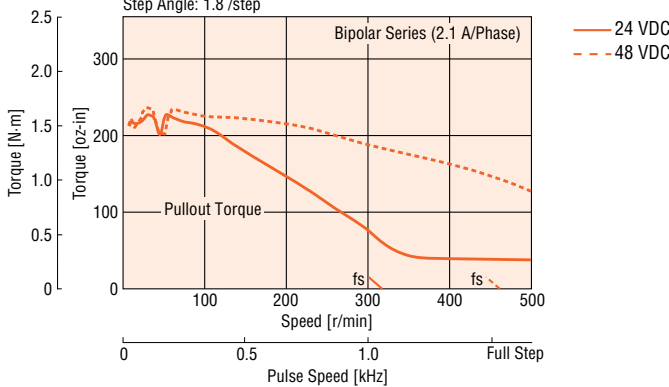
PK268-02B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



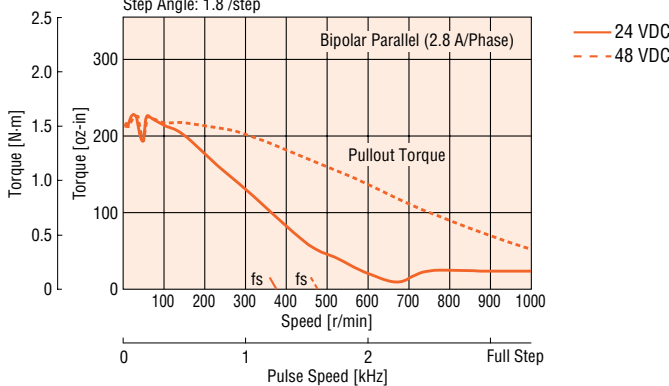
PK268-03B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



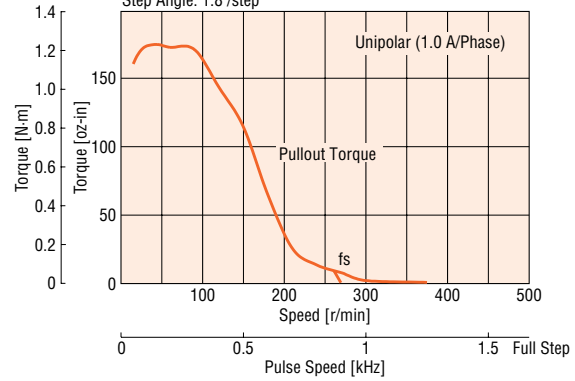
PK268-E2.0B Bipolar (Parallel)

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



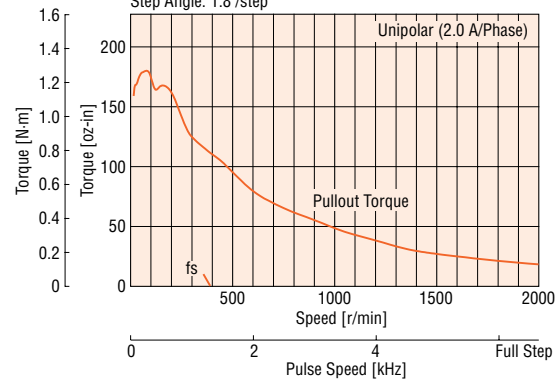
PK268-01B Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



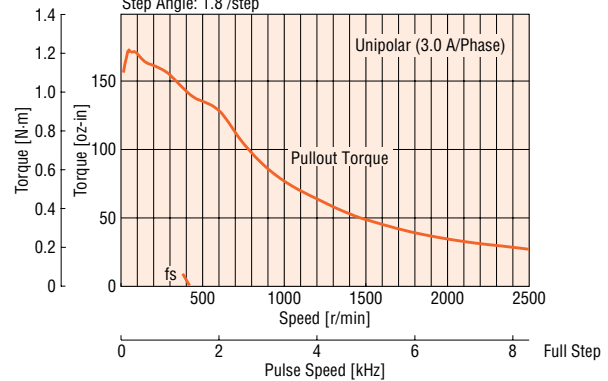
PK268-02B Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



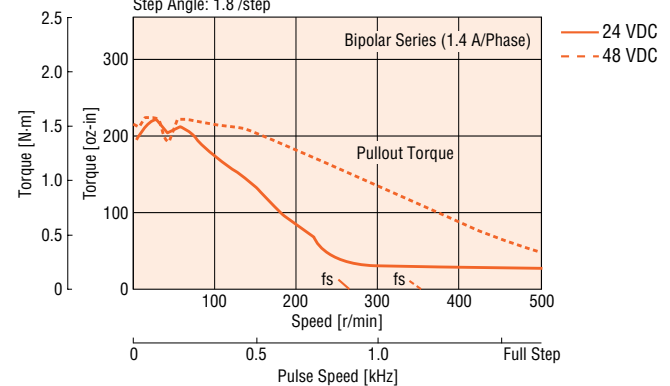
PK268-03B Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



PK268-E2.0B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



2.22 in. (56.4 mm)

Step Angle 0.9°

PK Series High Resolution Type



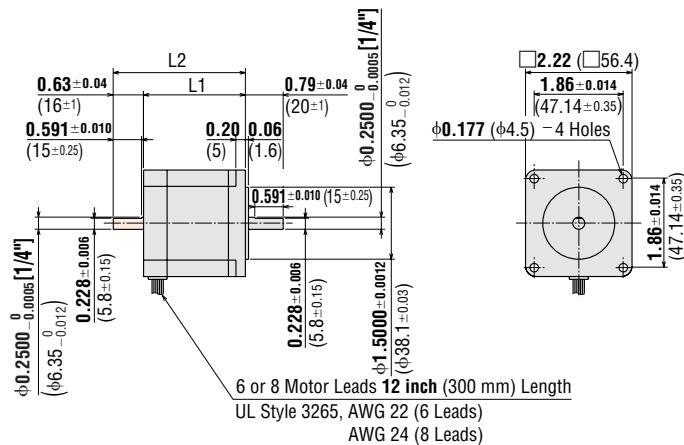
Specifications

Model	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance per Phase Ω/phase	Inductance mH/phase	Rotor Inertia J		Lead Wires	Corresponding AC/DC-Input Motor & Driver Package
		oz-in	N·m					oz-in ²	kg·m ²		
PK264M-01A	Bipolar (Series)	68	0.48	0.71	8.1	11.4	26	0.66	120×10 ⁻⁷	6	—
PK264M-01B	Unipolar	55	0.39	1	5.7	5.7	6.5				
PK264M-02A	Bipolar (Series)	68	0.48	1.4	3.9	2.8	6.8	0.66	120×10 ⁻⁷	6	UMK264M□A/ CSK264M-□TA
PK264M-02B	Unipolar	55	0.39	2	2.8	1.4	1.7				
PK264M-03A	Bipolar (Series)	68	0.48	2.1	2.6	1.26	3	0.66	120×10 ⁻⁷	6	—
PK264M-03B	Unipolar	55	0.39	3	1.9	0.63	0.75				
PK264M-E2.0A	Bipolar (Parallel)	68	0.48	2.8	1.96	0.7	1.7	0.66	120×10 ⁻⁷	8	—
PK264M-E2.0B	Bipolar (Series)	68	0.48	1.4	3.9	2.8	6.8				
	Unipolar	55	0.39	2	2.8	1.4	1.7				
PK266M-01A	Bipolar (Series)	166	1.17	0.71	11	14.8	50.8	1.64	300×10 ⁻⁷	6	—
PK266M-01B	Unipolar	127	0.9	1	7.4	7.4	12.7				
PK266M-02A	Bipolar (Series)	166	1.17	1.4	5	3.6	12.8	1.64	300×10 ⁻⁷	6	UMK266M□A/ CSK266M-□TA
PK266M-02B	Unipolar	127	0.9	2	3.6	1.8	3.2				
PK266M-03A	Bipolar (Series)	166	1.17	2.1	3.2	1.5	5.8	1.64	300×10 ⁻⁷	6	—
PK266M-03B	Unipolar	127	0.9	3	2.3	0.75	1.45				
PK266M-E2.0A	Bipolar (Parallel)	166	1.17	2.8	2.52	0.9	3.2	1.64	300×10 ⁻⁷	8	—
PK266M-E2.0B	Bipolar (Series)	166	1.17	1.4	5	3.6	12.8				
	Unipolar	127	0.9	2	3.6	1.8	3.2				
PK268M-01A	Bipolar (Series)	240	1.75	0.71	12	17.2	77.6	2.6	480×10 ⁻⁷	6	—
PK268M-01B	Unipolar	191	1.35	1	8.6	8.6	19.4				
PK268M-02A	Bipolar (Series)	240	1.75	1.4	6.3	4.5	19.2	2.6	480×10 ⁻⁷	6	UMK268M□A/ CSK268M-□TA
PK268M-02B	Unipolar	191	1.35	2	4.5	2.25	4.8				
PK268M-03A	Bipolar (Series)	240	1.75	2.1	4.2	2	8.4	2.6	480×10 ⁻⁷	6	—
PK268M-03B	Unipolar	191	1.35	3	3	1	2.1				
PK268M-E2.0A	Bipolar (Parallel)	240	1.75	2.8	3.16	1.13	4.8	2.6	480×10 ⁻⁷	8	—
PK268M-E2.0B	Bipolar (Series)	240	1.75	1.4	6.3	4.5	19.2				
	Unipolar	191	1.35	2	4.5	2.25	4.8				

How to Read Specifications → Page C-9
Motor Wiring Diagrams → Page C-189

Dimensions

Scale 1/4, Unit = inch (mm)



• These dimensions are for double shaft models. For single shaft models, ignore the shaded area.

Model	L1 inch (mm)	L2 inch (mm)	Weight lb. (kg)	DXF
PK264M-0□A PK264M-E2.0A	1.54 (39)	—	0.99 (0.45)	B084
PK264M-0□B PK264M-E2.0B		2.17 (55)		
PK266M-0□A PK266M-E2.0A	2.13 (54)	—	1.54 (0.7)	B085
PK266M-0□B PK266M-E2.0B		2.76 (70)		
PK268M-0□A PK268M-E2.0A	2.99 (76)	—	2.2 (1)	B086
PK268M-0□B PK268M-E2.0B		3.62 (92)		

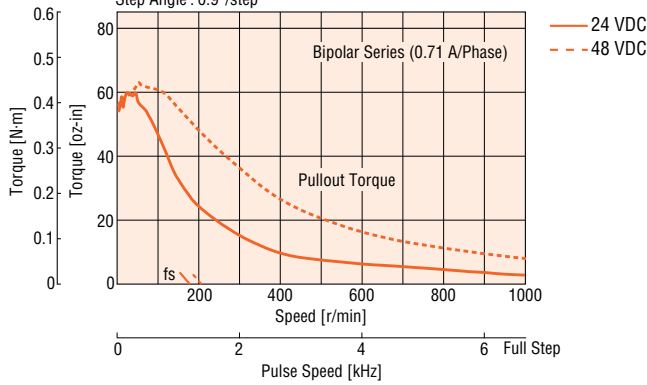
• Enter the winding specification in the box (□) within the model number.

Speed-Torque Characteristics

How to Read Speed-Torque Characteristics → Page C-10

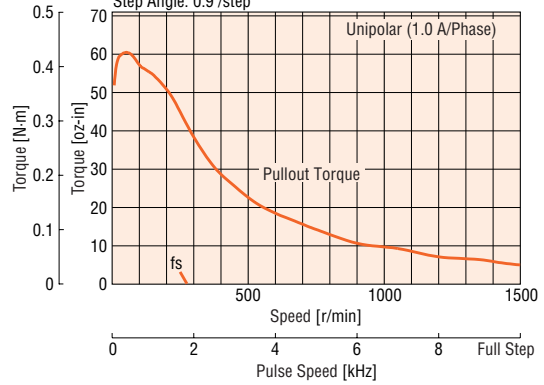
PK264M-01B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D6CL-6.3 F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



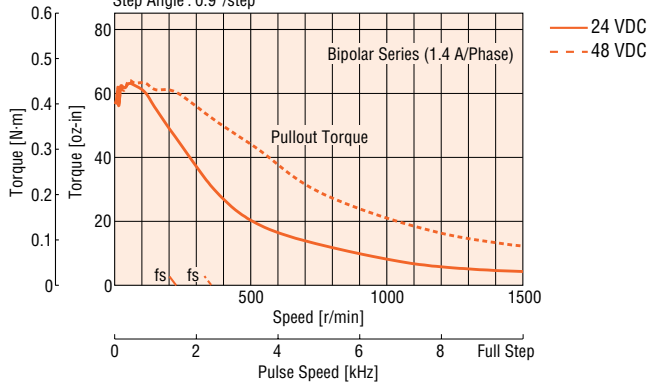
PK264M-01B Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D6CL-6.3 F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



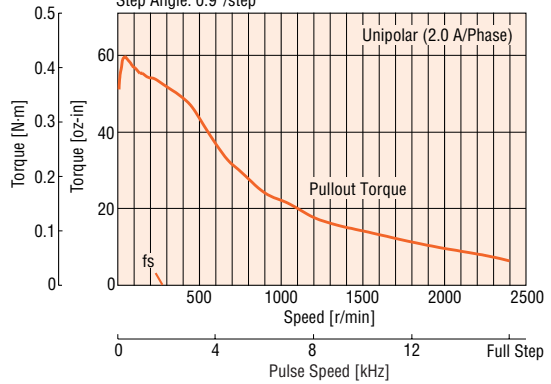
PK264M-02B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D6CL-6.3 F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



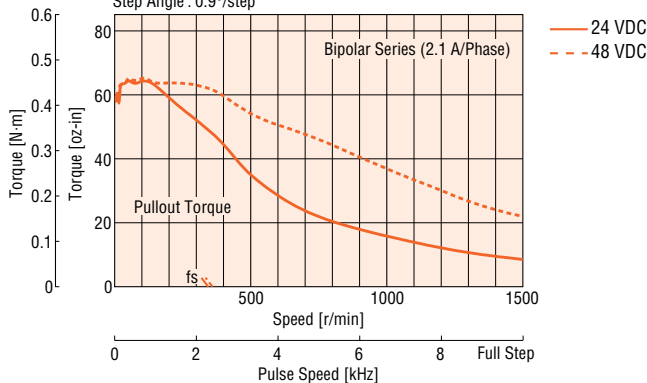
PK264M-02B Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D6CL-6.3 F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



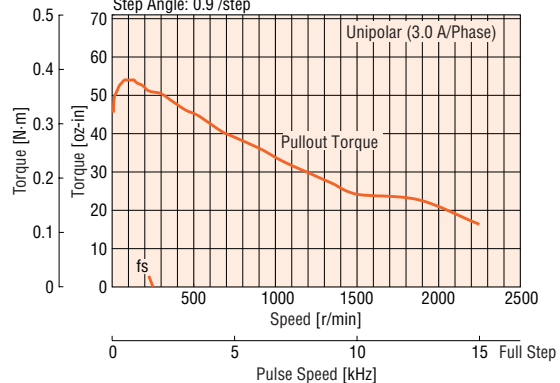
PK264M-03B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D6CL-6.3 F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



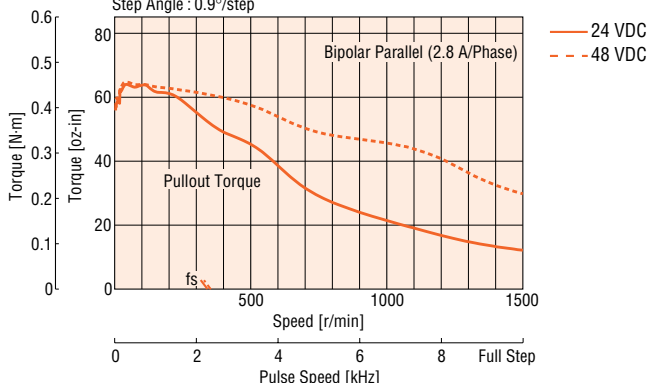
PK264M-03B Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D6CL-6.3 F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



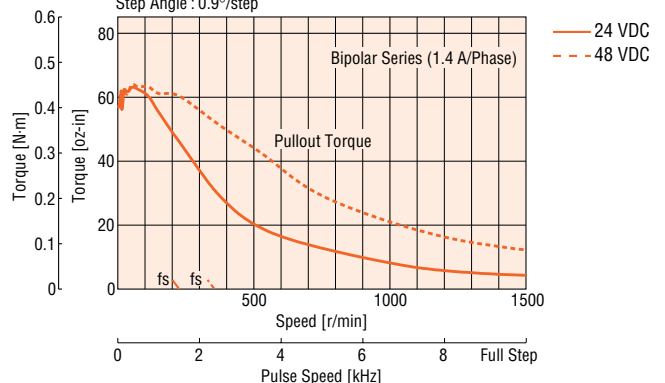
PK264M-E2.0B Bipolar (Parallel)

Bipolar Constant Current Driver
With Damper **D6CL-6.3 F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



PK264M-E2.0B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D6CL-6.3 F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



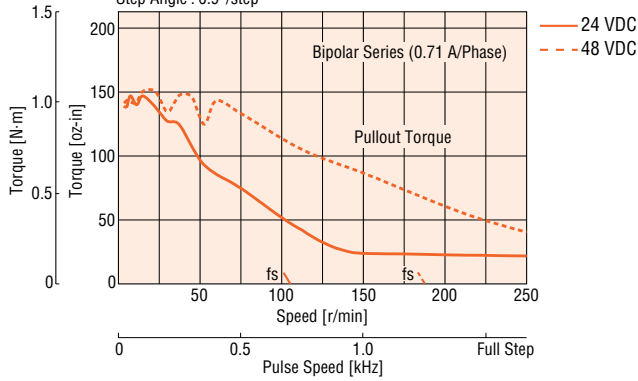
Introduction															
AS	AS PLUS	ASC	RK	CRK II	CSK	PMC	UMK	CSK	PK/PV	PK	UI2120G	EMP401	EMP402	SG8030J	SMK

Speed-Torque Characteristics

How to Read Speed-Torque Characteristics → Page C-10

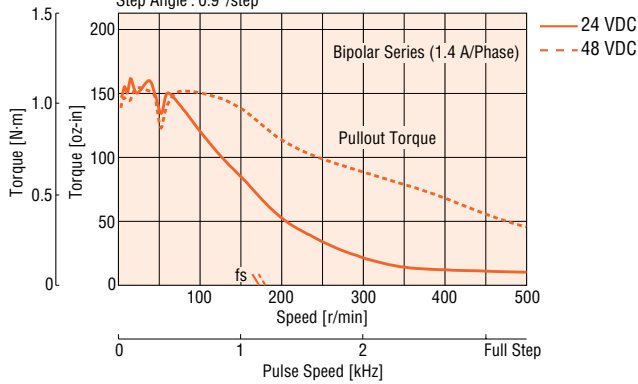
PK266M-01B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D6CL-6.3 F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



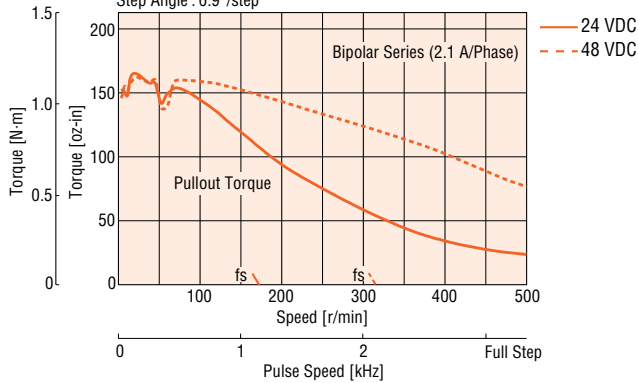
PK266M-02B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D6CL-6.3 F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



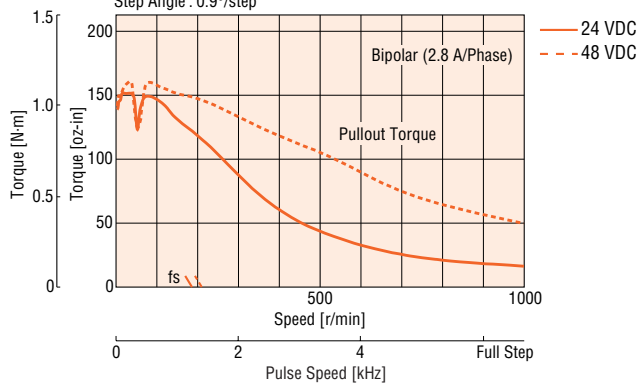
PK266M-03B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D6CL-6.3 F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



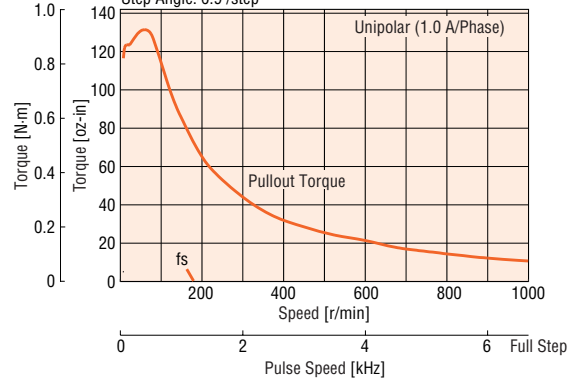
PK266M-E2.0B Bipolar (Parallel)

Bipolar Constant Current Driver
With Damper **D6CL-6.3 F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



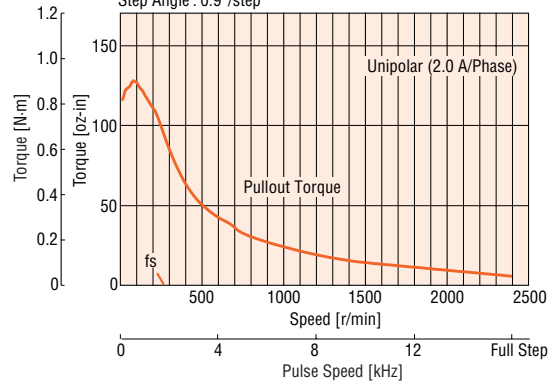
PK266M-01B Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D6CL-6.3 F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



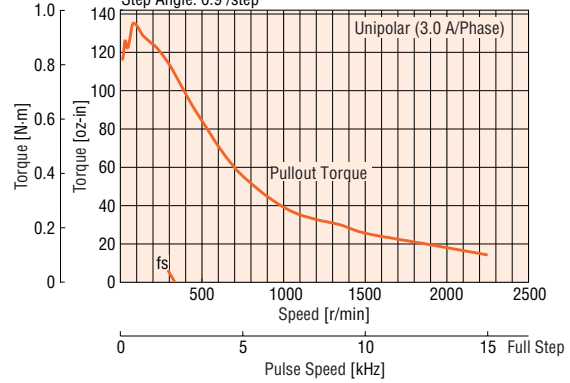
PK266M-02B Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D6CL-6.3 F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



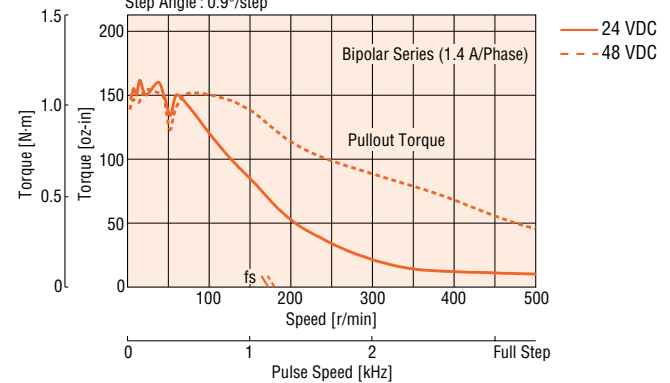
PK266M-03B Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D6CL-6.3 F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



PK266M-E2.0B Bipolar (Series)

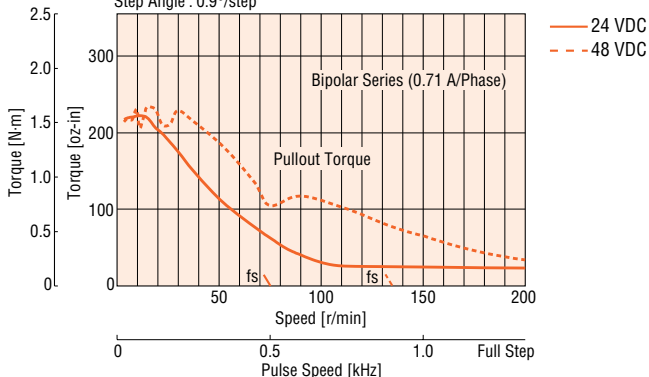
Bipolar Constant Current Driver
With Damper **D6CL-6.3 F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



Introduction	AS	AS PLUS	ASC	RK	CRK II	CSK	PMC	UMK	CSK	PK/PV	PK	UI2120G	EMP401	EMP402	SG8030J	SMK	Accessories

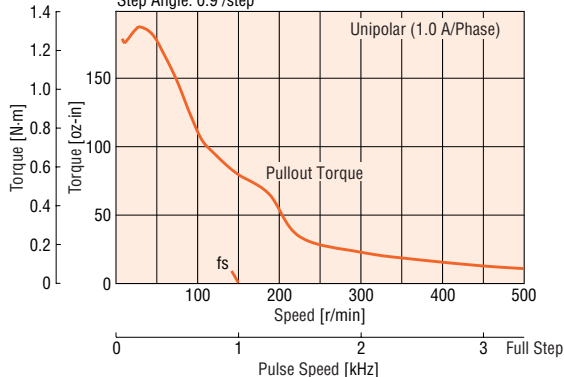
PK268M-01B Bipolar (Series)

Bipolar Constant Current Driver
 With Damper **D6CL-6.3 F** : $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
 Step Angle : 0.9°/step



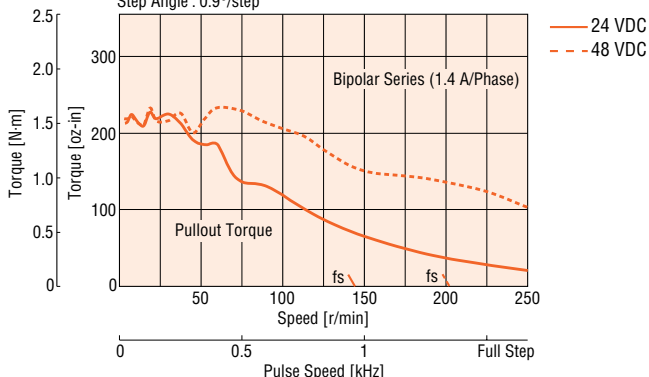
PK268M-01B Unipolar

Power Input : 24 VDC Unipolar Constant Current Driver
 With Damper **D6CL-6.3 F** : $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
 Step Angle : 0.9°/step



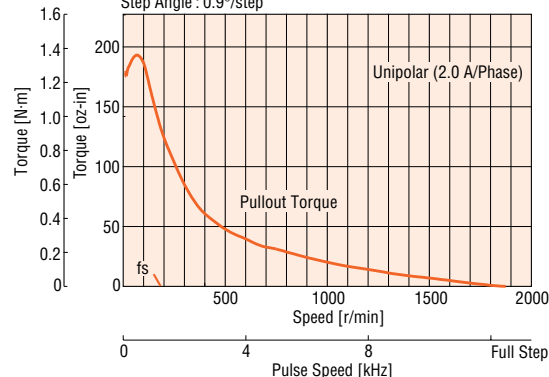
PK268M-02B Bipolar (Series)

Bipolar Constant Current Driver
 With Damper **D6CL-6.3 F** : $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
 Step Angle : 0.9°/step



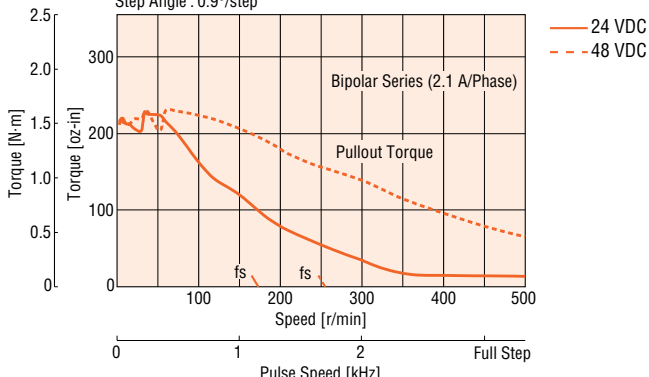
PK268M-02B Unipolar

Power Input : 24 VDC Unipolar Constant Current Driver
 With Damper **D6CL-6.3 F** : $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
 Step Angle : 0.9°/step



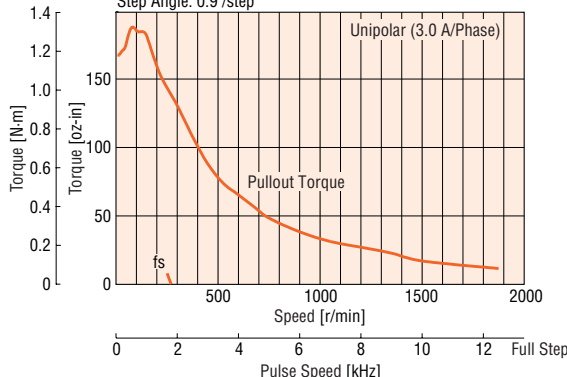
PK268M-03B Bipolar (Series)

Bipolar Constant Current Driver
 With Damper **D6CL-6.3 F** : $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
 Step Angle : 0.9°/step



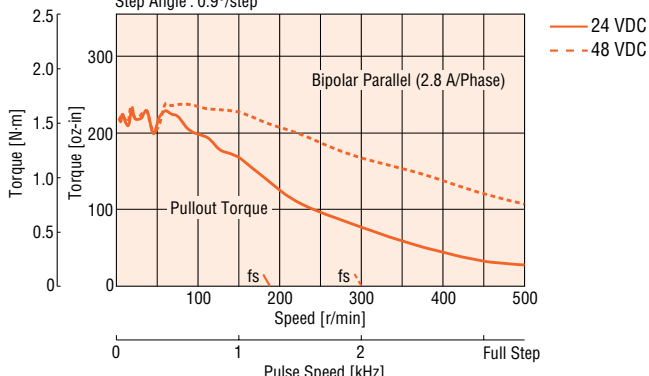
PK268M-03B Unipolar

Power Input : 24 VDC Unipolar Constant Current Driver
 With Damper **D6CL-6.3 F** : $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
 Step Angle : 0.9°/step



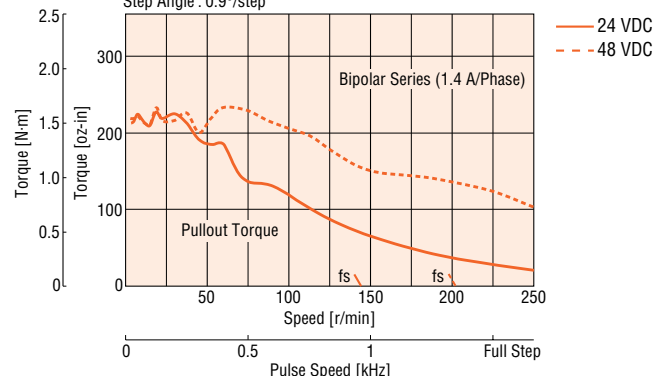
PK268M-E2.0B Bipolar (Parallel)

Bipolar Constant Current Driver
 With Damper **D6CL-6.3 F** : $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
 Step Angle : 0.9°/step



PK268M-E2.0B Bipolar (Series)

Bipolar Constant Current Driver
 With Damper **D6CL-6.3 F** : $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
 Step Angle : 0.9°/step



□ 2.36 in. (□ 60 mm)

PK Series SH Geared Type



Specifications

Motor Specifications

Model Single Shaft Double Shaft	Connection Type	Current per Phase A/phase	Voltage VDC	Resistance per Phase Ω/phase	Inductance mH/phase	Rotor Inertia J		Lead Wires	Corresponding DC-Input Motor & Driver Package
						oz-in ²	kg·m ²		
PK264A1A-SG □	Bipolar (Series)	0.71	8.1	11.4	21.6	0.66	120×10 ⁻⁷	6	—
PK264B1A-SG □	Unipolar	1	5.7	5.7	5.4				
PK264A2A-SG □	Bipolar (Series)	1.4	3.9	2.8	5.6	0.66	120×10 ⁻⁷	6	CSK264 □ TA-SG □
PK264B2A-SG □	Unipolar	2	2.8	1.4	1.4				

How to Read Specifications → Page C-9

Motor Wiring Diagrams → Page C-189

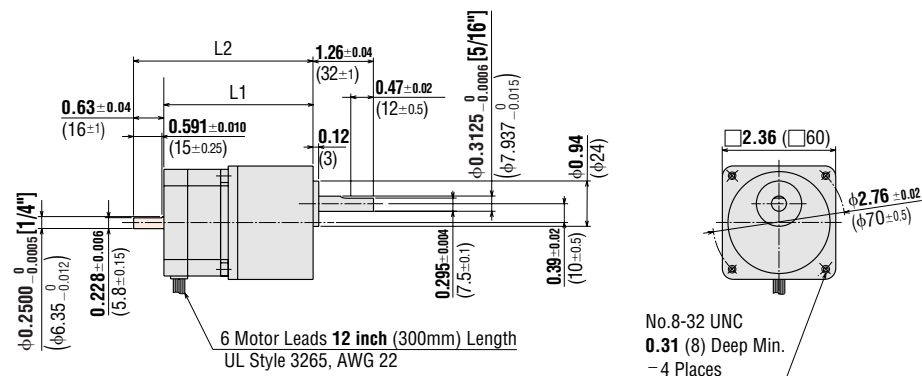
• Enter the gear ratio in the box (□) within the model number.

Gearmotor Specifications

Model Single Shaft Double Shaft	Gear Ratio	Holding Torque*		Step Angle	Permissible Speed
		lb-in	N·m		
PK264A1A-SG3.6 , PK264A2A-SG3.6 PK264B1A-SG3.6 , PK264B2A-SG3.6	3.6:1	8.8	1	0.5°	500
PK264A1A-SG7.2 , PK264A2A-SG7.2 PK264B1A-SG7.2 , PK264B2A-SG7.2	7.2:1	17.7	2	0.25°	250
PK264A1A-SG9 , PK264A2A-SG9 PK264B1A-SG9 , PK264B2A-SG9	9:1	22	2.5	0.2°	200
PK264A1A-SG10 , PK264A2A-SG10 PK264B1A-SG10 , PK264B2A-SG10	10:1	23	2.7	0.18°	180
PK264A1A-SG18 , PK264A2A-SG18 PK264B1A-SG18 , PK264B2A-SG18	18:1	26	3	0.1°	100
PK264A1A-SG36 , PK264A2A-SG36 PK264B1A-SG36 , PK264B2A-SG36	36:1	35	4	0.05°	50

* Holding torque is the same regardless of the connection type, due to the permissible torque limit of the gearhead.

Dimensions Scale 1/4, Unit = inch (mm)



Mounting Screws (included)

No.8-32 UNC 0.59 in. (15 mm) length, 4 pieces

• These dimensions are for double shaft models. For single shaft models, ignore the shaded area.

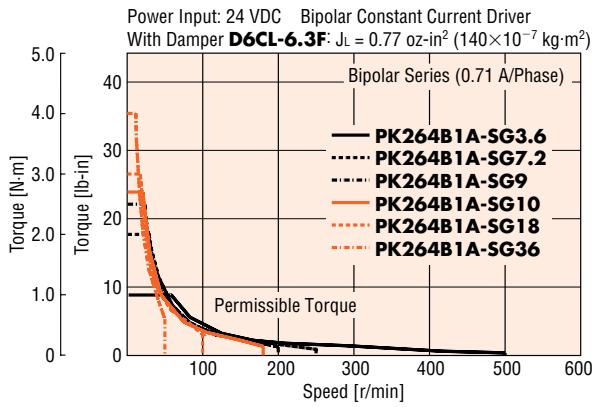
Model	L1 inch (mm)	L2 inch (mm)	Weight lb. (kg)	DXF
PK264A □ A-SG □	3.11 (79)	—	1.7 (0.75)	B092U
PK264B □ A-SG □		3.74 (95)		

• Enter the winding specification in the box (□) within the model number.
• Enter the gear ratio in the box (□) within the model number.

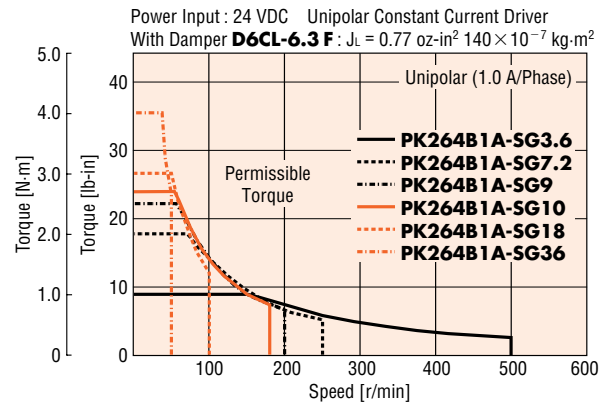
Speed-Torque Characteristics

How to Read Speed-Torque Characteristics → Page C-10

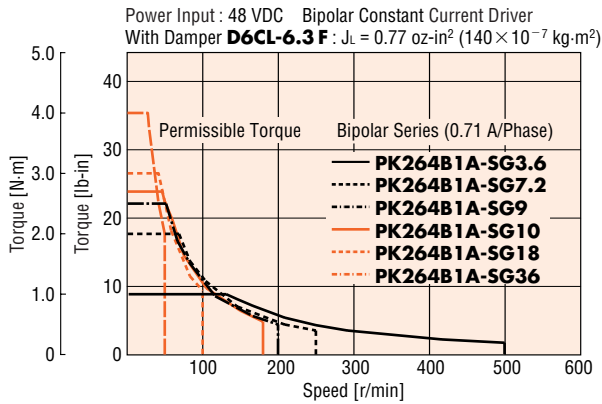
● PK264B1A-SG Bipolar (Series) 24 VDC



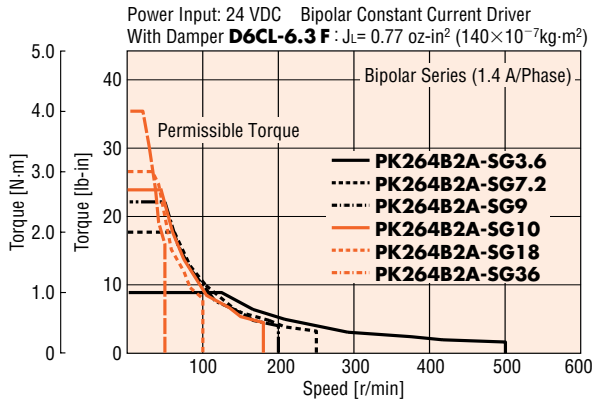
● PK264B1A-SG Unipolar



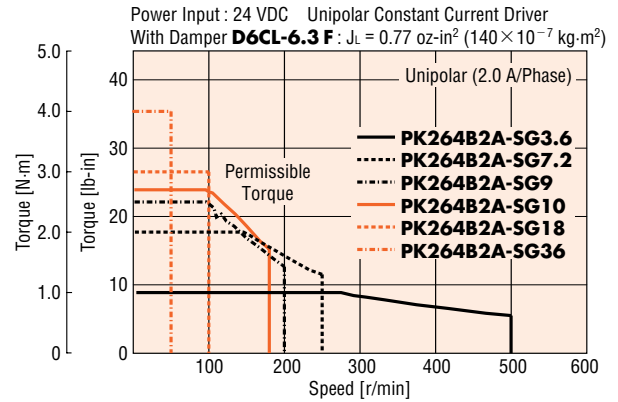
● PK264B1A-SG Bipolar (Series) 48 VDC



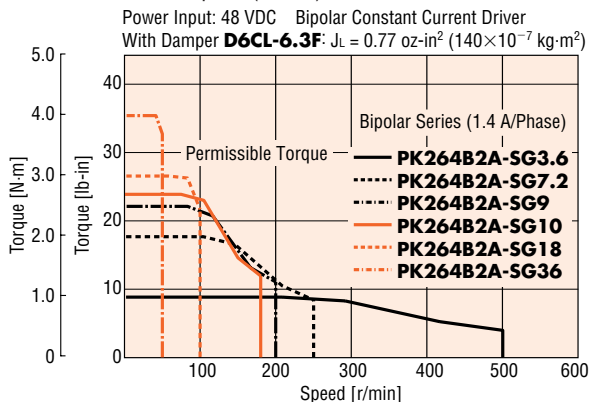
● PK264B2A-SG Bipolar (Series) 24 VDC



● PK264B2A-SG Unipolar



● PK264B2A-SG Bipolar (Series) 48 VDC



Introduction

AS

AS PLUS

ASC

AS PLUS

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

ASC

Motor & Driver Packages	
AS	Closed Loop Q_{STEP} AC Input
AS PLUS	DC Input
ASC	DC Input
AS PLUS	5-Phase Microstep AC Input
ASC	DC Input
ASC	5-Phase Full/Half AC Input
ASC	DC Input
ASC	2-Phase Full/Half AC Input
ASC	DC Input
ASC	2-Phase Full/Half AC Input
ASC	DC Input
ASC	Encoder without Encoder
ASC	Encoder with Encoder
ASC	Driver with Indexer
ASC	Controllers
ASC	Low-Speed Synchronous Motors
ASC	Accessories
ASC	Before Using a Stepping Motor

2.36 in. (60 mm)

Step Angle 1.8°

PV Series (High Inertia Capability)



Specifications

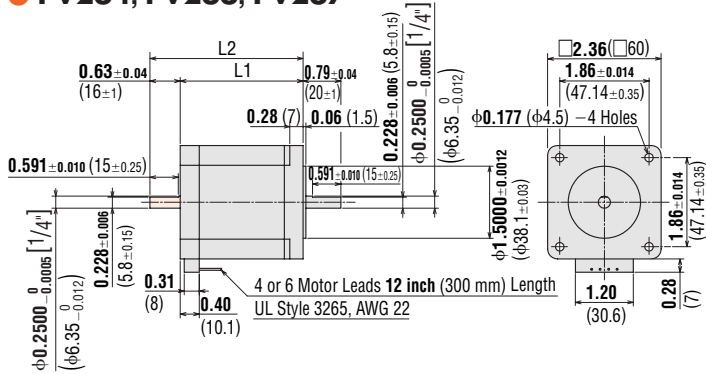
Model	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance per Phase Ω/phase	Inductance mH/phase	Rotor Inertia J		Lead Wires
		oz-in	N-m					oz-in ²	kg-m ²	
PV264-D2.8AA PV264-D2.8BA	Bipolar	150	1.06	2.8	2.1	0.73	1.8	1.53	280×10 ⁻⁷	4
PV264-02AA PV264-02BA	Bipolar (Series) Unipolar	150 106	1.06 0.75	1.4 2	4.1 2.9	2.92 1.46	7.2 1.8	1.53	280×10 ⁻⁷	6
PV266-D2.8AA PV266-D2.8BA	Bipolar	240	1.75	2.8	2.8	1	3.05	2.5	450×10 ⁻⁷	4
PV266-02AA PV266-02BA	Bipolar (Series) Unipolar	240 191	1.75 1.35	1.4 2	5.6 4	4 2	12.2 3.05	2.5	450×10 ⁻⁷	6
PV267-D2.8AA PV267-D2.8BA	Bipolar	310	2.2	2.8	3.4	1.2	3.54	3.1	570×10 ⁻⁷	4
PV267-02AA PV267-02BA	Bipolar (Series) Unipolar	310 240	2.2 1.7	1.4 2	6.7 4.8	4.8 2.4	14.2 3.54	3.1	570×10 ⁻⁷	6
PV269-D2.8AA PV269-D2.8BA	Bipolar	440	3.1	2.8	4.2	1.49	5.7	4.9	900×10 ⁻⁷	4
PV269-02AA PV269-02BA	Bipolar (Series) Unipolar	440 310	3.1 2.2	1.4 2	8.3 6	5.96 2.98	22.8 5.7	4.9	900×10 ⁻⁷	6

How to Read Specifications → Page C-9

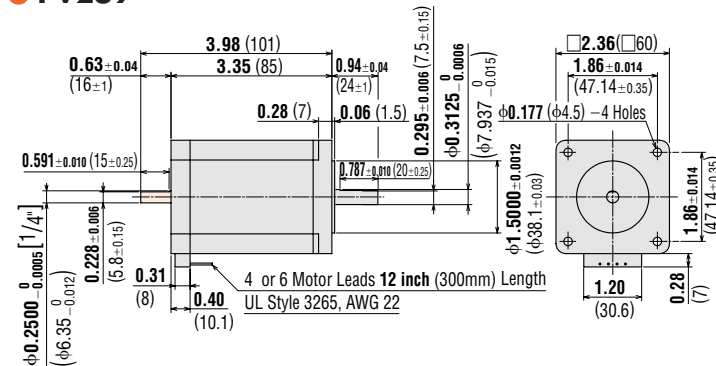
Motor Wiring Diagrams → Page C-189

Dimensions Scale 1/4, Unit = inch (mm)

● PV264, PV266, PV267



● PV269



● These dimensions are for double shaft models. For single shaft models, ignore the shaded area.

Model	L1 inch (mm)	L2 inch (mm)	Weight lb. (kg)	DXF
PV264-D2.8AA PV264-02AA	1.71 (43.5)	—	1.3 (0.6)	B279U
PV264-D2.8BA PV264-02BA		2.34 (59.5)		
PV266-D2.8AA PV266-02AA	2.13 (54)	—	1.8 (0.83)	B232U
PV266-D2.8BA PV266-02BA		2.76 (70)		
PV267-D2.8AA PV267-02AA	2.56 (65)	—	2.2 (1.02)	B813U
PV267-D2.8BA PV267-02BA		3.19 (81)		

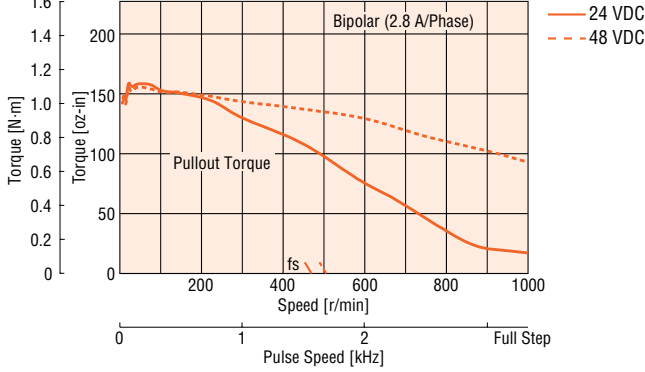
Model	Weight lb. (kg)	DXF
PV269-D2.8AA PV269-02AA	3.1 (1.43)	B814U
PV269-D2.8BA PV269-02BA		

Speed-Torque Characteristics

How to Read Speed-Torque Characteristics → Page C-10

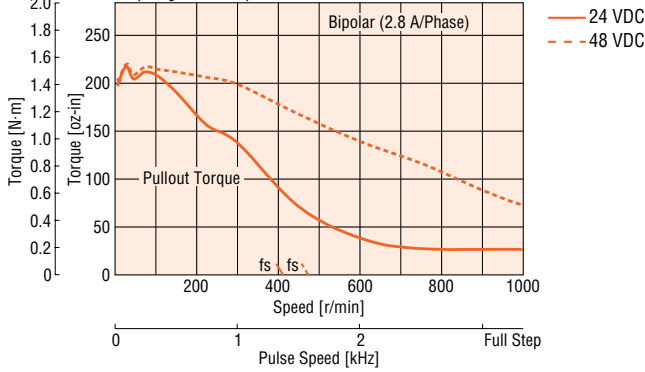
● PV264-D2.8BA Bipolar

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg}\cdot\text{m}^2)$
Step Angle: $1.8^\circ/\text{step}$



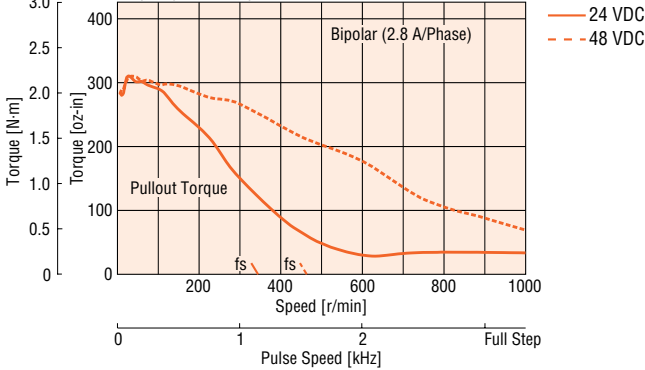
● PV266-D2.8BA Bipolar

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg}\cdot\text{m}^2)$
Step Angle: $1.8^\circ/\text{step}$



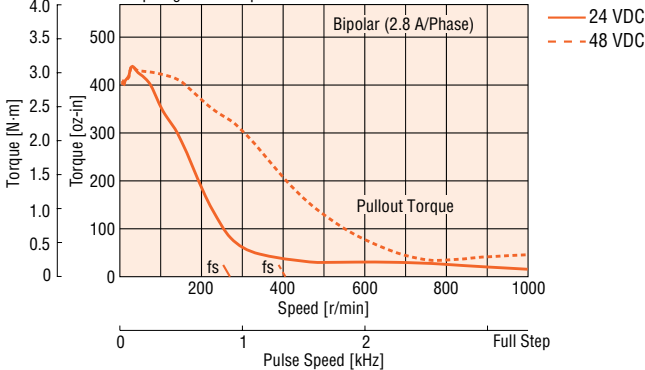
● PV267-D2.8BA Bipolar

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg}\cdot\text{m}^2)$
Step Angle: $1.8^\circ/\text{step}$



● PV269-D2.8BA Bipolar

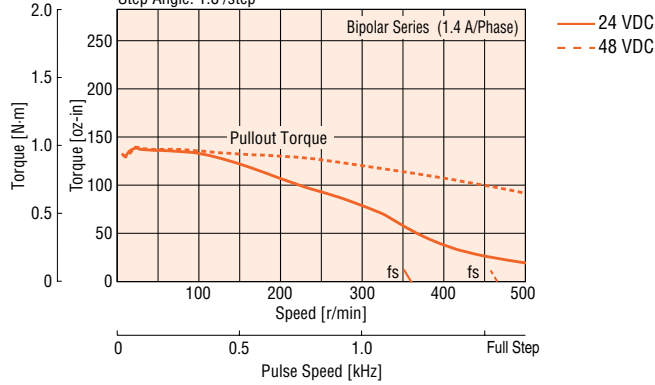
Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg}\cdot\text{m}^2)$
Step Angle: $1.8^\circ/\text{step}$



Introduction	Motor & Driver Packages	
AS	Closed Loop Q_{5727P}	5-Phase Microstep
AS PLUS	AC Input	AC Input
ASC	DC Input	DC Input
ASC	5-Phase Full/Half	5-Phase Full/Half
RK	AC Input	AC Input
RK	DC Input	DC Input
CRK II	DC Input	DC Input
CSK	DC Input	DC Input
PMC	AC Input	AC Input
PMC	DC Input	DC Input
UMK	AC Input	AC Input
UMK	DC Input	DC Input
CSK	AC Input	AC Input
CSK	DC Input	DC Input
PK/PV	without Encoder	without Encoder
PK	with Encoder	with Encoder
U12120G	with Indexer	Driver with Indexer
EMP401		Controllers
EMP402		Controllers
SG8030J		Controllers
SMK	Low-Speed Synchronous Motors	Low-Speed Synchronous Motors
Accessories		Accessories
	Before Using a Stepping Motor	Before Using a Stepping Motor

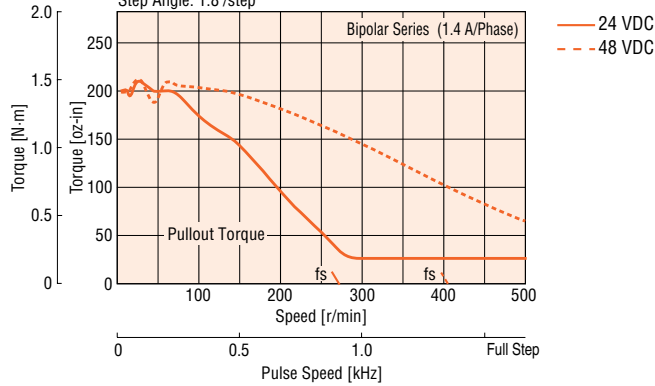
● **PV264-02BA Bipolar (Series)**

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



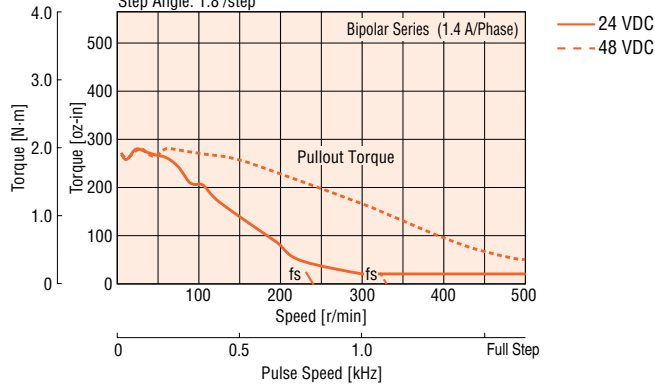
● **PV266-02BA Bipolar (Series)**

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



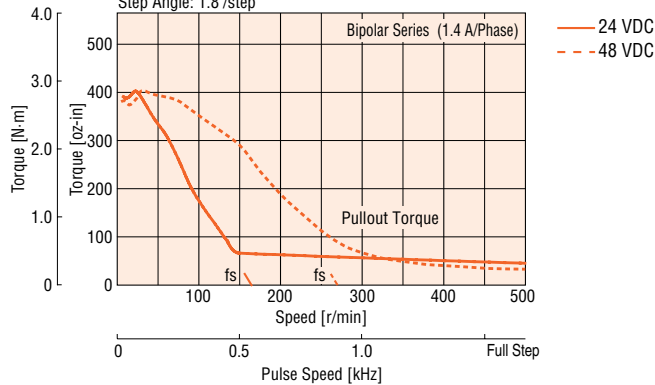
● **PV267-02BA Bipolar (Series)**

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



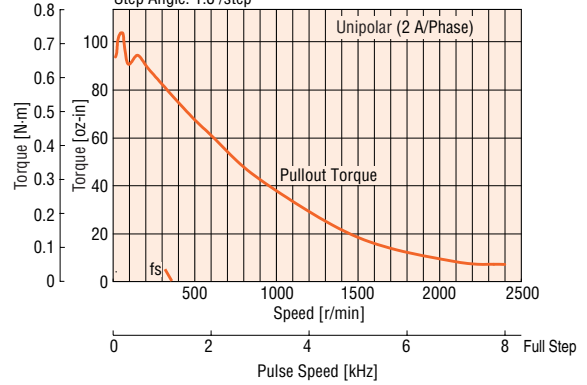
● **PV269-02BA Bipolar (Series)**

Bipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



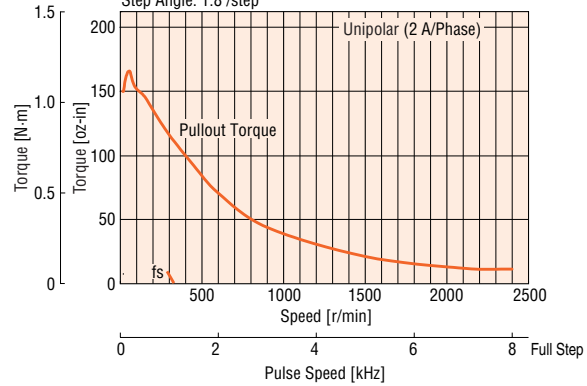
● **PV264-02BA Unipolar**

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



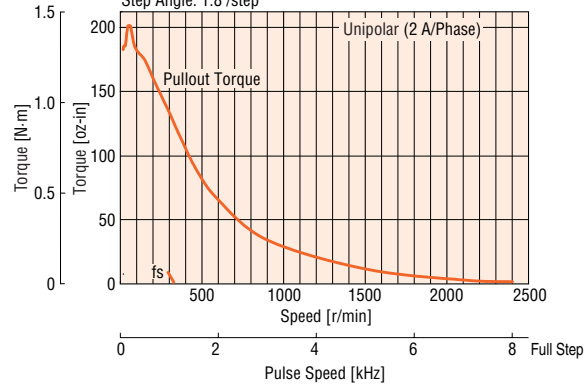
● **PV266-02BA Unipolar**

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



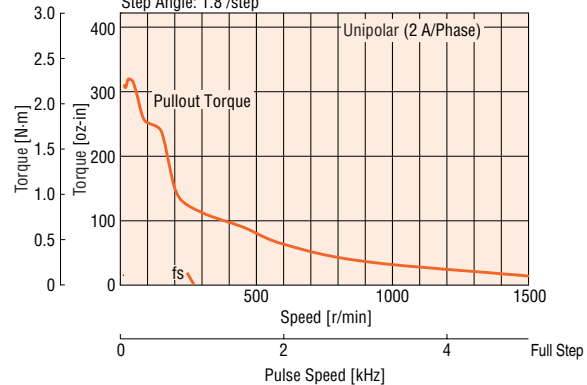
● **PV267-02BA Unipolar**

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



● **PV269-02BA Unipolar**

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D6CL-6.3F**: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



3.35 in. (85 mm)

Step Angle 1.8°

PK Series Standard Type



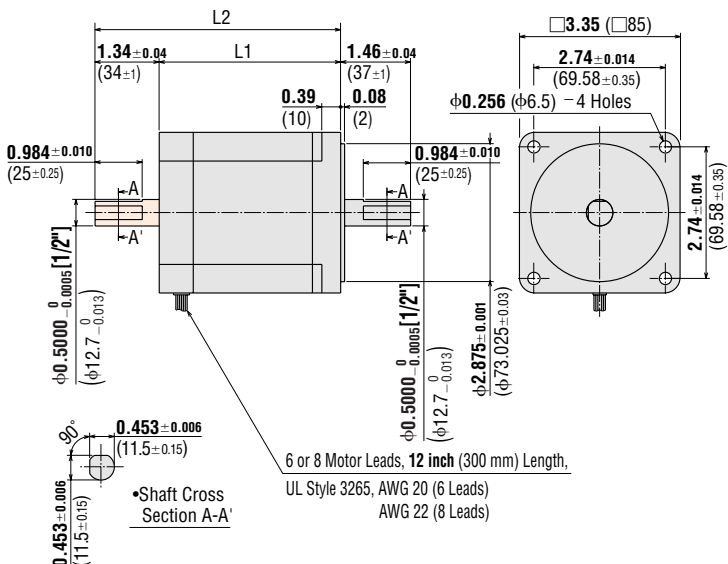
Specifications

Model	Connection Type	Holding Torque		Current per Phase	Voltage	Resistance per Phase	Inductance	Rotor Inertia J		Lead Wires
		oz-in	N·m					oz-in ²	kg·m ²	
PK296-01AA PK296-01BA	Bipolar (Series)	440	3.1	1.4	6.2	4.4	30.8	7.7	1400×10 ⁻⁷	6
	Unipolar	310	2.2	2	4.4	2.2	7.7			
PK296-02AA PK296-02BA	Bipolar (Series)	440	3.1	2.1	4.2	2	14	7.7	1400×10 ⁻⁷	6
	Unipolar	310	2.2	3	3	1	3.5			
PK296-03AA PK296-03BA	Bipolar (Series)	440	3.1	3.18	2.8	0.96	6	7.7	1400×10 ⁻⁷	6
	Unipolar	310	2.2	4.5	2	0.48	1.5			
PK296-F4.5A PK296-F4.5B	Bipolar (Parallel)	440	3.1	6.3	1.4	0.24	1.5	7.7	1400×10 ⁻⁷	8
	Bipolar (Series)	440	3.1	3.18	2.8	0.96	6			
	Unipolar	310	2.2	4.5	2	0.48	1.5			
PK299-01AA PK299-01BA	Bipolar (Series)	880	6.2	1.4	9	6.4	56	14.8	2700×10 ⁻⁷	6
	Unipolar	620	4.4	2	6.4	3.2	14			
PK299-02AA PK299-02BA	Bipolar (Series)	880	6.2	2.1	6	3	24	14.8	2700×10 ⁻⁷	6
	Unipolar	620	4.4	3	4.2	1.5	6			
PK299-03AA PK299-03BA	Bipolar (Series)	880	6.2	3.18	3.9	1.32	10	14.8	2700×10 ⁻⁷	6
	Unipolar	620	4.4	4.5	2.8	0.66	2.5			
PK299-F4.5A PK299-F4.5B	Bipolar (Parallel)	880	6.2	6.3	1.9	0.33	2.5	14.8	2700×10 ⁻⁷	8
	Bipolar (Series)	880	6.2	3.18	3.9	1.32	10			
	Unipolar	620	4.4	4.5	2.8	0.66	2.5			
PK2913-01AA PK2913-01BA	Bipolar (Series)	1320	9.3	1.4	10	7.6	76.8	22	4000×10 ⁻⁷	6
	Unipolar	930	6.6	2	7.6	3.8	19.2			
PK2913-02AA PK2913-02BA	Bipolar (Series)	1320	9.3	2.8	5.3	1.94	16.8	22	4000×10 ⁻⁷	6
	Unipolar	930	6.6	4	3.8	0.97	4.2			
PK2913-F4.0A PK2913-F4.0B	Bipolar (Parallel)	1320	9.3	5.6	2.6	0.49	4.2	22	4000×10 ⁻⁷	8
	Bipolar (Series)	1320	9.3	2.8	5.3	1.94	16.8			
	Unipolar	930	6.6	4	3.8	0.97	4.2			

How to Read Specifications → Page C-9

Motor Wiring Diagrams → Page C-189

Dimensions Scale 1/4, Unit = inch (mm)



- These dimensions are for double shaft models. For single shaft models, ignore the shaded area.

Model	L1 inch (mm)	L2 inch (mm)	Weight lb. (kg)	DXF
PK296-0□AA PK296-F4.5A	2.60 (66)	—	3.7 (1.7)	B122U
PK296-0□BA PK296-F4.5B		3.94 (100)		
PK299-0□AA PK299-F4.5A	3.78 (96)	—	6.2 (2.8)	B123U
PK299-0□BA PK299-F4.5B		5.12 (130)		
PK2913-0□AA PK2913-F4.0A	4.96 (126)	—	8.4 (3.8)	B124U
PK2913-0□BA PK2913-F4.0B		6.30 (160)		

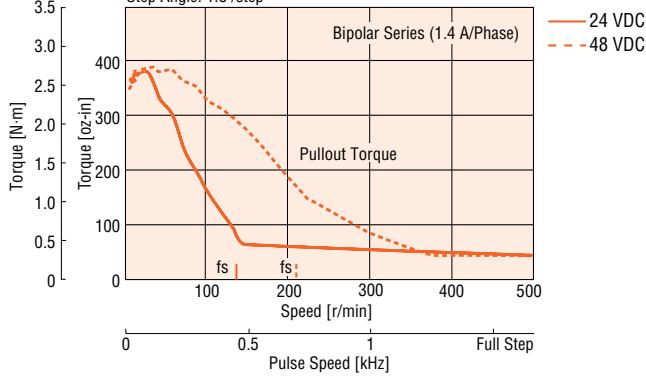
- Enter the winding specification in the box (□) within the model name.

Speed-Torque Characteristics

How to Read Speed-Torque Characteristics → Page C-10

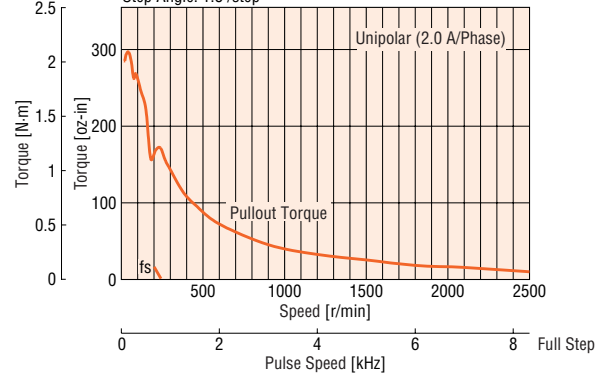
PK296-01BA Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



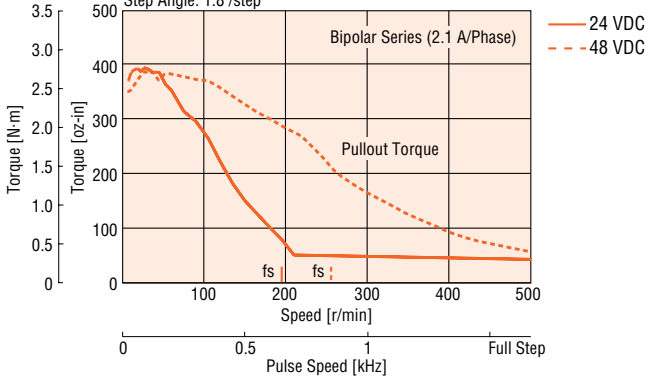
PK296-01BA Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



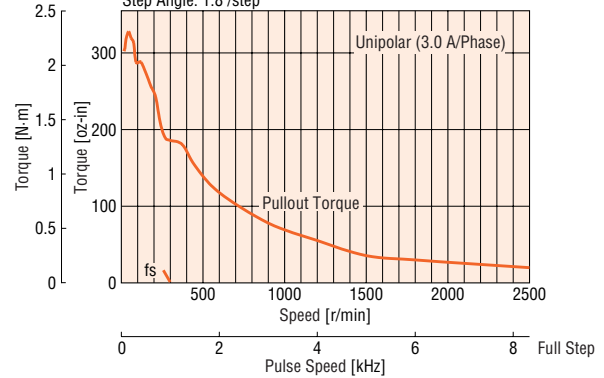
PK296-02BA Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



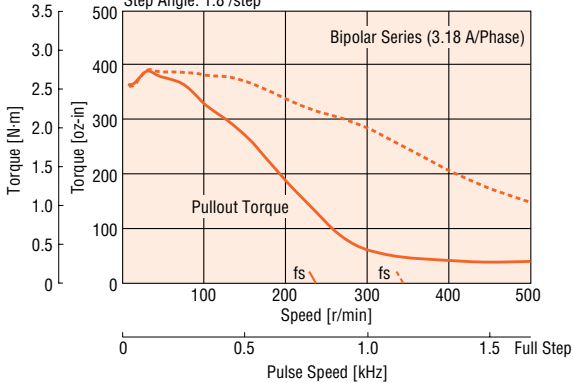
PK296-02BA Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



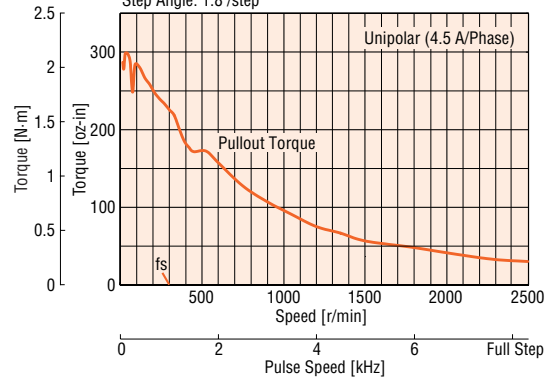
PK296-03BA Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



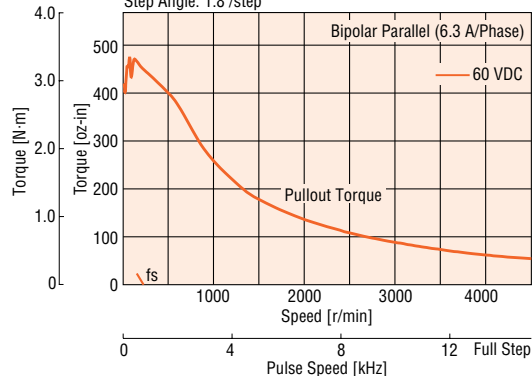
PK296-03BA Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



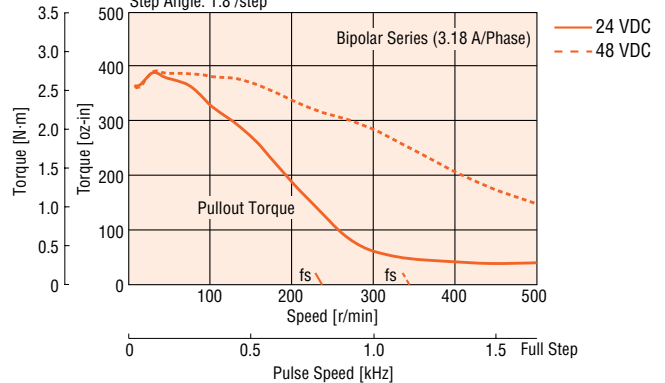
PK296-F4.5B Bipolar (Parallel)

Power Input: 60 VDC Bipolar Constant Current Driver
With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



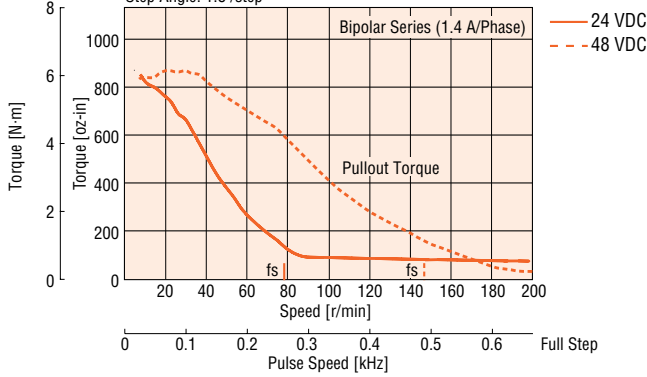
PK296-F4.5B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: 1.8°/step



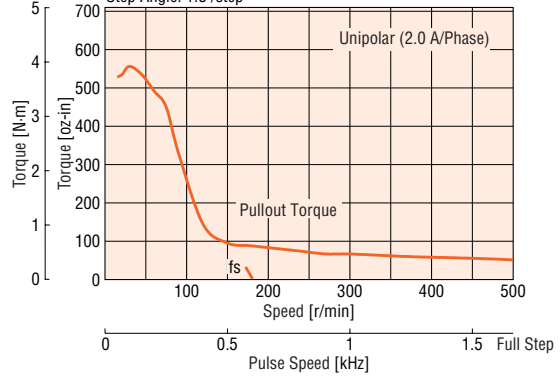
PK299-01BA Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



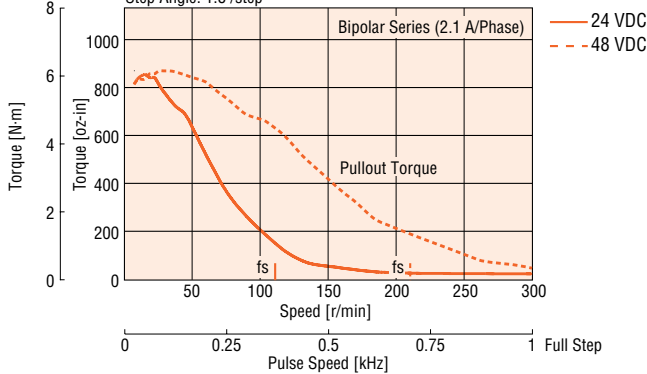
PK299-01BA Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



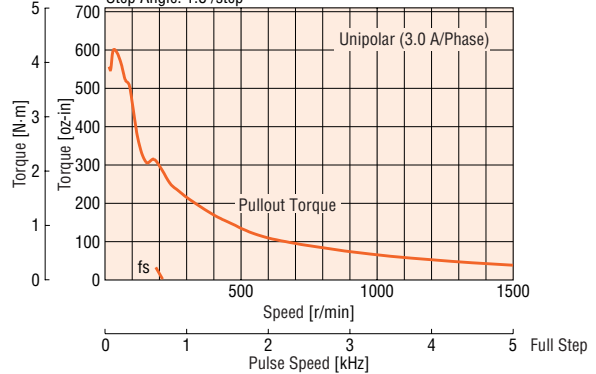
PK299-02BA Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



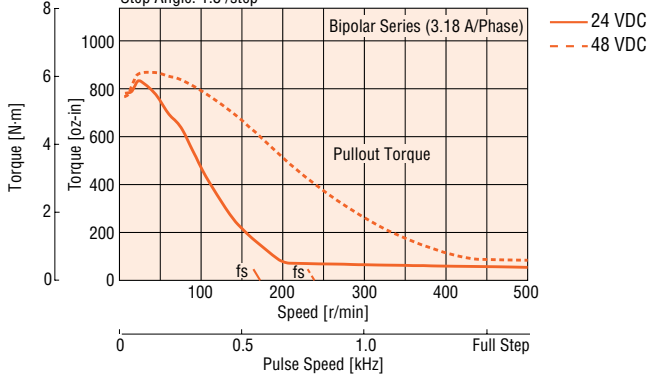
PK299-02BA Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



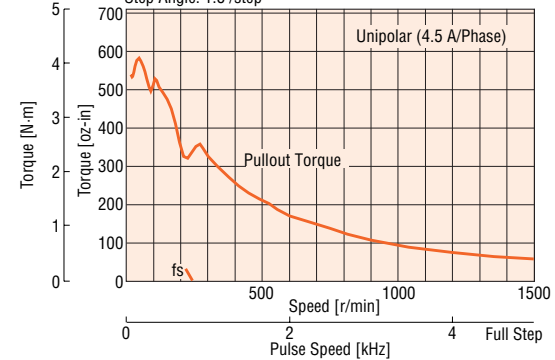
PK299-03BA Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



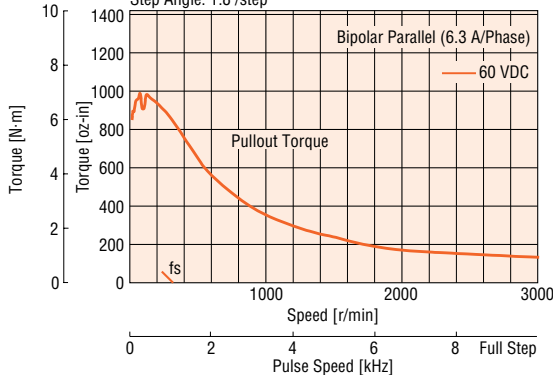
PK299-03BA Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
Load Inertia: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



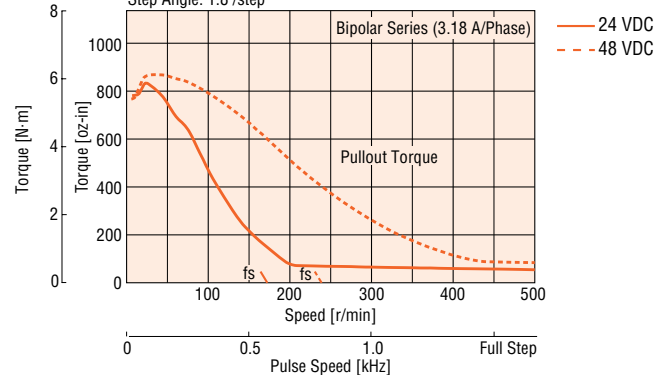
PK299-F4.5B Bipolar (Parallel)

Power Input: 60 VDC Bipolar Constant Current Driver
With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



PK299-F4.5B Bipolar (Series)

Bipolar Constant Current Driver
With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



Introduction				
AS	Closed Loop <i>Q57ZP</i> AC Input	Motor & Driver Packages	5-Phase Microstep AC Input	5-Phase Full/Half DC Input
AS PLUS	DC Input		DC Input	DC Input
ASC				
RK				
CRK II				
CSK				
PMC				
UMK				
CSK				
PK/PV		2-Phase Stepping Motors	without Encoder	without Encoder
PK			with Encoder	with Encoder
UI2120G		Driver	with Inducer	with Inducer
EMP401		Controllers		
EMP402				
SG8030J				
SMK		Low-Speed Synchronous Motors		
Accessories				
		Before Using a Stepping Motor		

□ 1.10 in. (□ 28 mm)

□ 1.38 in. (□ 35 mm)

□ 1.65 in. (□ 42 mm)

□ 2.22 in. (□ 56.4 mm)

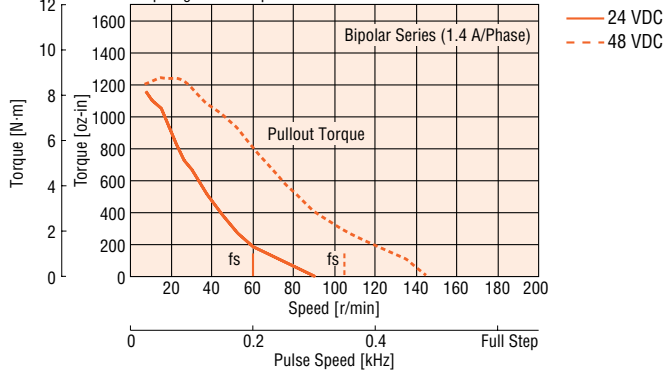
□ 2.36 in. (□ 60 mm)

□ 3.35 in. (□ 85 mm)

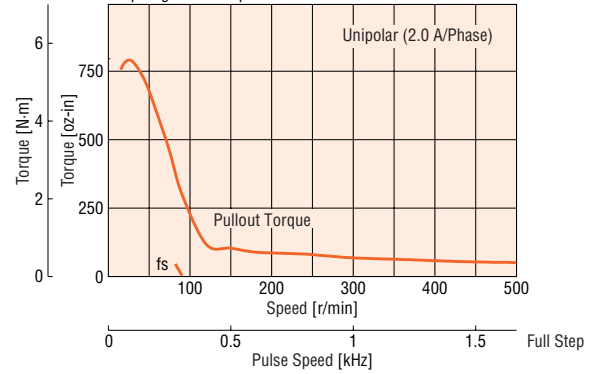
□ 3.54 in. (□ 90 mm)

● **PK2913-01BA** Bipolar (Series)

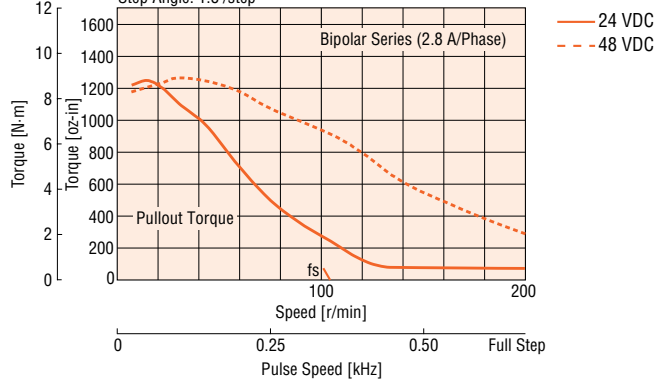
Bipolar Constant Current Driver
 With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
 Step Angle: $1.8^\circ/\text{step}$

● **PK2913-01BA** Unipolar

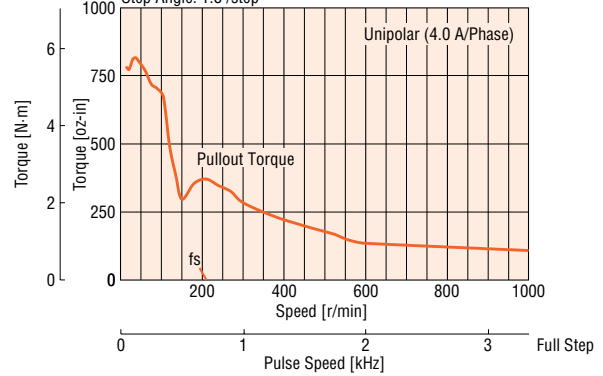
Power Input: 24 VDC Unipolar Constant Current Driver
 With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
 Step Angle: $1.8^\circ/\text{step}$

● **PK2913-02BA** Bipolar (Series)

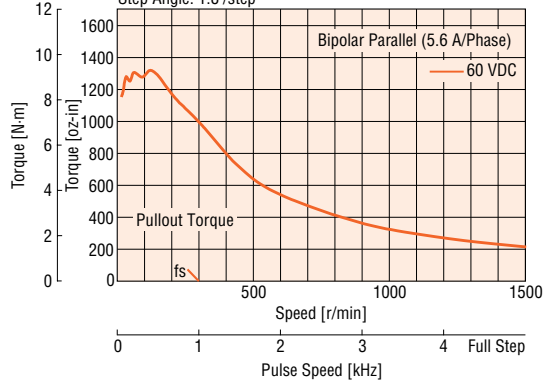
Bipolar Constant Current Driver
 With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
 Step Angle: $1.8^\circ/\text{step}$

● **PK2913-02BA** Unipolar

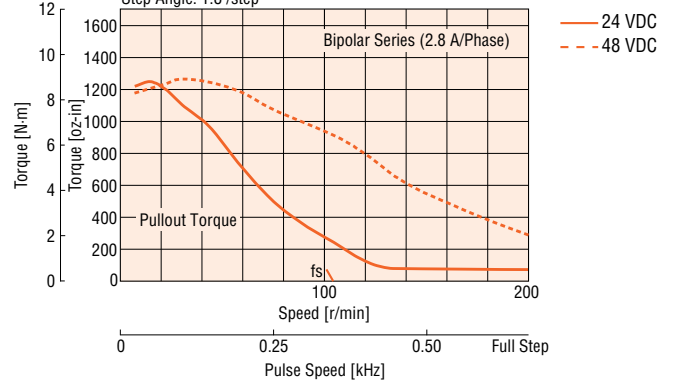
Power Input: 24 VDC Unipolar Constant Current Driver
 With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
 Step Angle: $1.8^\circ/\text{step}$

● **PK2913-F4.0B** Bipolar (Parallel)

Power Input: 60 VDC Bipolar Constant Current Driver
 With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
 Step Angle: $1.8^\circ/\text{step}$

● **PK2913-F4.0B** Bipolar (Series)

Bipolar Constant Current Driver
 With Damper **D9CL-12.7F**: $J_L = 4.8 \text{ oz-in}^2 (870 \times 10^{-7} \text{ kg-m}^2)$
 Step Angle: $1.8^\circ/\text{step}$



□ 3.54 in. (□ 90 mm)

PK Series SH Geared Type



Specifications

Motor Specifications

Model	Connection Type	Current per Phase	Voltage	Resistance per Phase	Inductance	Rotor Inertia J		Lead Wires
						A/phase	VDC	
Single Shaft								
Double Shaft								
PK296A1A-SG □	Bipolar (Series)	1	4.4	4.4	30.8	7.7	1400×10 ⁻⁷	6
PK296B1A-SG □	Unipolar	1.5	3.3	2.2	7.7			
PK296A2A-SG □	Bipolar (Series)	2.1	2	0.96	6	7.7	1400×10 ⁻⁷	6
PK296B2A-SG □	Unipolar	3	1.4	0.48	1.5			

How to Read Specifications → Page C-9

Motor Wiring Diagrams → Page C-189

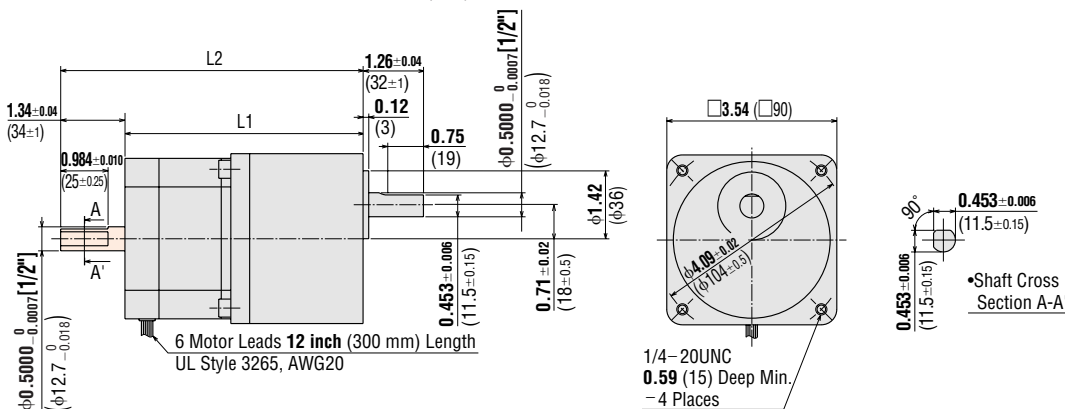
Enter the gear ratio in the box (□) within the model name.

Gearmotor Specifications

Model	Gear Ratio	Holding Torque*		Step Angle	Permissible Speed
		lb-in	N·m		
Single Shaft					
Double Shaft					
PK296A1A-SG3.6 , PK296A2A-SG3.6 PK296B1A-SG3.6 , PK296B2A-SG3.6	3.6:1	22	2.5	0.5°	500
PK296A1A-SG7.2 , PK296A2A-SG7.2 PK296B1A-SG7.2 , PK296B2A-SG7.2	7.2:1	44	5	0.25°	250
PK296A1A-SG9 , PK296A2A-SG9 PK296B1A-SG9 , PK296B2A-SG9	9:1	55	6.3	0.2°	200
PK296A1A-SG10 , PK296A2A-SG10 PK296B1A-SG10 , PK296B2A-SG10	10:1	61	7	0.18°	180
PK296A1A-SG18 , PK296A2A-SG18 PK296B1A-SG18 , PK296B2A-SG18	18:1	79	9	0.1°	100
PK296A1A-SG36 , PK296A2A-SG36 PK296B1A-SG36 , PK296B2A-SG36	36:1	106	12	0.05°	50

* Holding torque is the same regardless of the connection type, due to the permissible torque limit of the gearhead.

Dimensions Scale 1/4, Unit = inch (mm)



- Screws (included)
1/4-20 UNC, 0.75 inch (19 mm) length, 4 pieces
- These dimensions are for double shaft models. For single shaft models, ignore the shaded area.

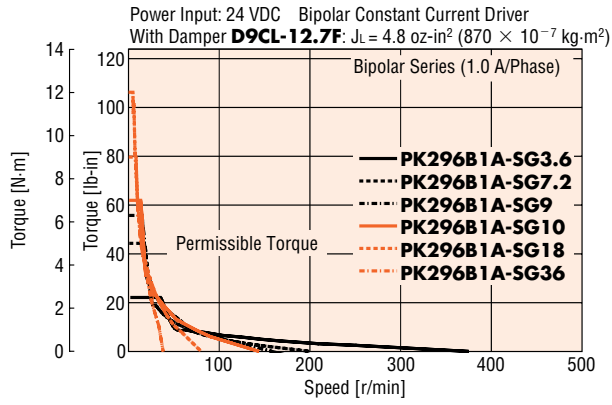
Model	L1 inch (mm)	L2 inch (mm)	Weight lb. (kg)	DXF
PK296A □ A-SG □	4.96 (126)	—	6.2 (2.8)	B242U
PK296B □ A-SG □		6.3 (160)		

- Enter the winding specification in the box (□) within the model number.
- Enter the gear ratio in the box (□) within the model number.

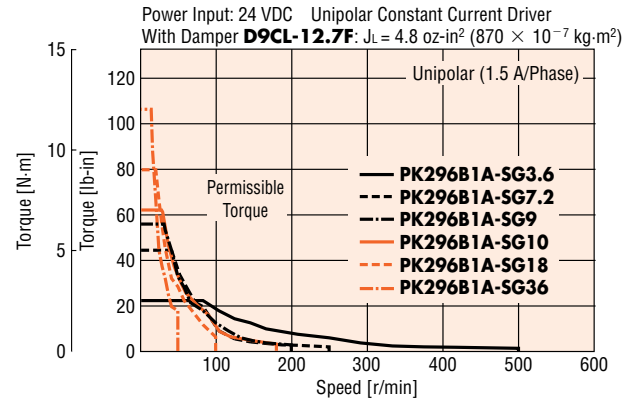
Speed-Torque Characteristics

How to Read Speed-Torque Characteristics → Page C-10

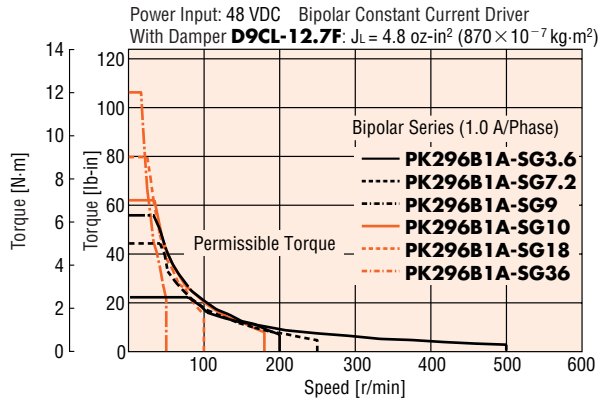
● PK296B1A-SG □ Bipolar (Series) 24 VDC



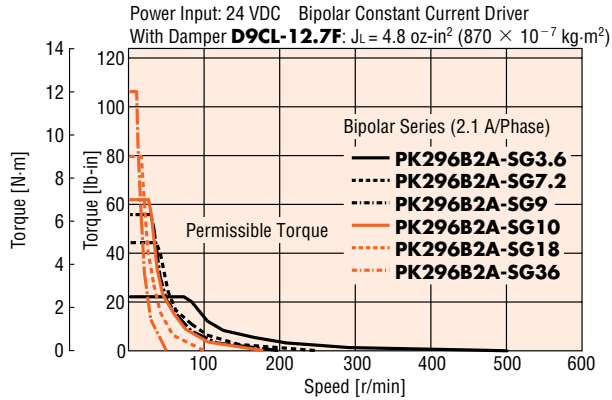
● PK296B1A-SG □ Unipolar



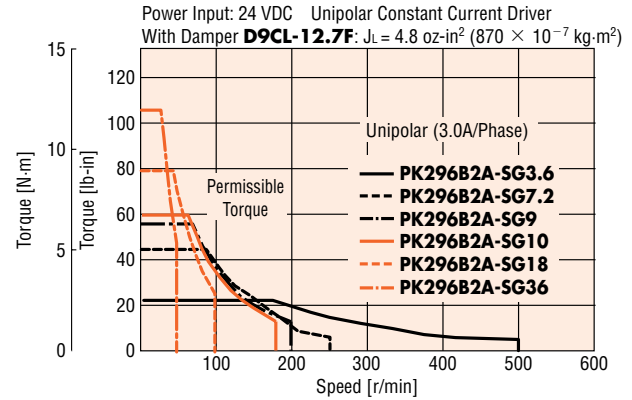
● PK296A1B-SG □ Bipolar (Series) 48 VDC



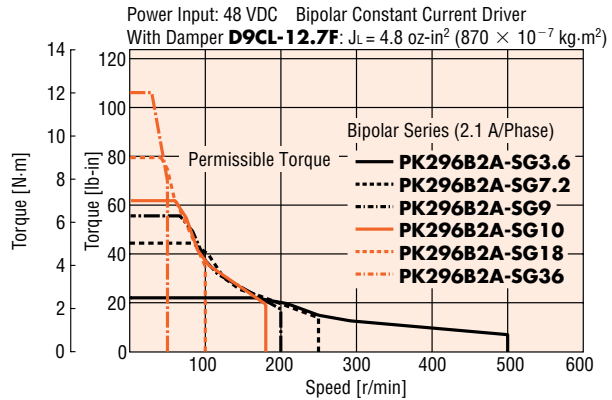
● PK296B2A-SG □ Bipolar (Series) 24 VDC



● PK296B2A-SG □ Unipolar

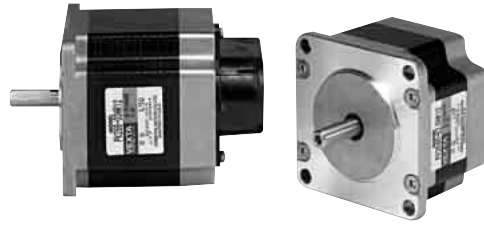


● PK296B2A-SG □ Bipolar (Series) 48 VDC



2.22 in. (56.4 mm)

PK Series Standard Type with Encoder

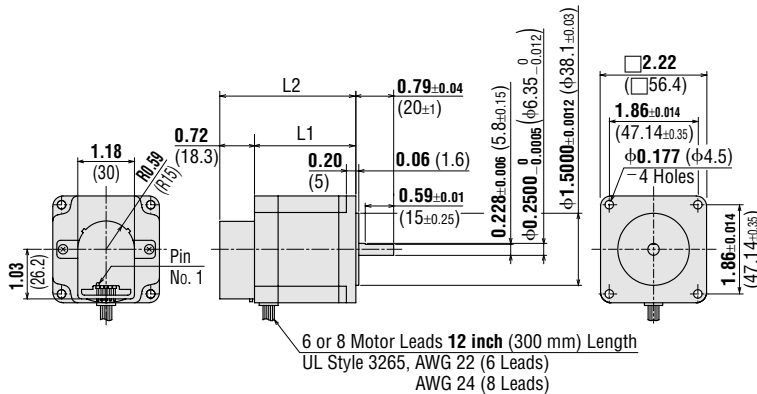


Specifications

Model Single Shaft	Basic Step Angle	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance per Phase Ω/phase	Inductance mH/phase	Rotor Inertia J		Lead Wires
			oz-in	N-m					oz-in ²	kg-m ²	
PK264-01AR11 PK264-01AR12	1.8°	Bipolar (Series)	68	0.48	0.71	8.1	11.4	21.6	0.66	120×10 ⁻⁷	6
		Unipolar	55	0.39	1	5.7	5.7	5.4			
PK264-02AR11 PK264-02AR12	1.8°	Bipolar (Series)	68	0.48	1.4	3.9	2.8	5.6	0.66	120×10 ⁻⁷	6
		Unipolar	55	0.39	2	2.8	1.4	1.4			
PK264-03AR11 PK264-03AR12	1.8°	Bipolar (Series)	68	0.48	2.1	2.6	1.26	2.4	0.66	120×10 ⁻⁷	6
		Unipolar	55	0.39	3	1.9	0.63	0.6			
PK264-E2.0AR11 PK264-E2.0AR12	1.8°	Bipolar (Parallel)	68	0.48	2.8	1.96	0.7	1.4	0.66	120×10 ⁻⁷	8
		Bipolar (Series)	68	0.48	1.4	3.9	2.8	5.6			
		Unipolar	55	0.39	2	2.8	1.4	1.4			
PK266-01AR11 PK266-01AR12	1.8°	Bipolar (Series)	166	1.17	0.71	11	14.8	40	1.64	300×10 ⁻⁷	6
		Unipolar	127	0.9	1	7.4	7.4	10			
PK266-02AR11 PK266-02AR12	1.8°	Bipolar (Series)	166	1.17	1.4	5	3.6	10	1.64	300×10 ⁻⁷	6
		Unipolar	127	0.9	2	3.6	1.8	2.5			
PK266-03AR11 PK266-03AR12	1.8°	Bipolar (Series)	166	1.17	2.1	3.2	1.5	4.4	1.64	300×10 ⁻⁷	6
		Unipolar	127	0.9	3	2.3	0.75	1.1			
PK266-E2.0AR11 PK266-E2.0AR12	1.8°	Bipolar (Parallel)	166	1.17	2.8	2.52	0.9	2.5	1.64	300×10 ⁻⁷	8
		Bipolar (Series)	166	1.17	1.4	5	3.6	10			
		Unipolar	127	0.9	2	3.6	1.8	2.5			

How to Read Specifications → Page C-9
 Motor Wiring Diagrams → Page C-189

Dimensions Scale 1/4, Unit = inch (mm)



Model	L1 inch (mm)	L2 inch (mm)	Weight lb. (kg)	DXF
PK264-0□AR11 PK264-0□AR12	1.54 (39)	2.26 (57.3)	1.03 (0.47)	B808U
PK264-E2.0AR11 PK264-E2.0AR12				
PK266-0□AR11 PK266-0□AR12	2.13 (54)	2.85 (72.3)	1.58 (0.72)	B809U
PK266-E2.0AR11 PK266-E2.0AR12				

Enter the winding specification in the box (□) within the model number.

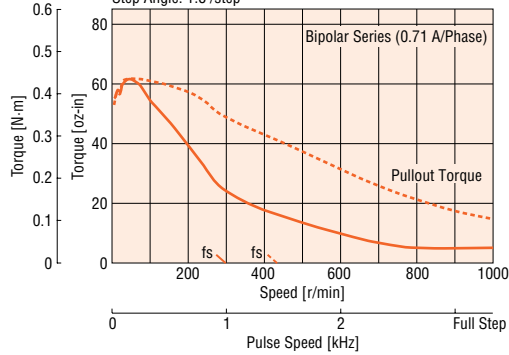
Encoder Specifications → Page C-239

Speed-Torque Characteristics

How to Read Speed-Torque Characteristics → Page C-10

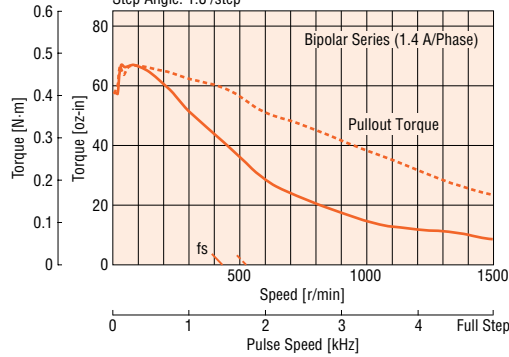
PK264-01AR11 PK264-01AR12 Bipolar (Series)

Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



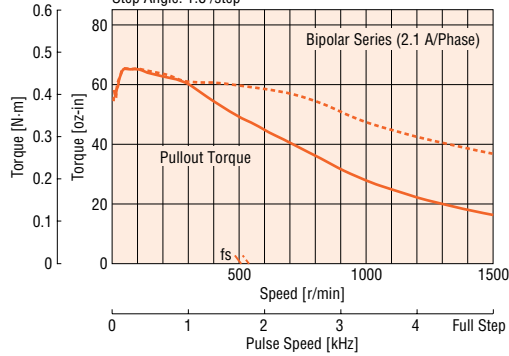
PK264-02AR11 PK264-02AR12 Bipolar (Series)

Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



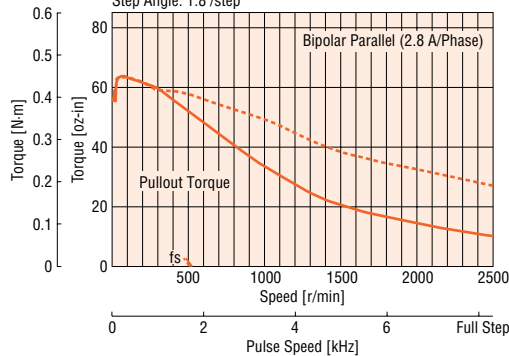
PK264-03AR11 PK264-03AR12 Bipolar (Series)

Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



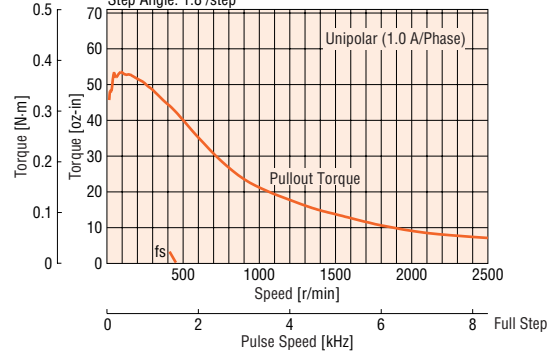
PK264-E2.0AR11 PK264-E2.0AR12 Bipolar (Parallel)

Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



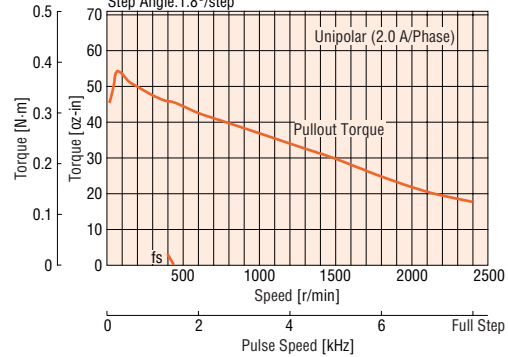
PK264-01AR11 PK264-01AR12 Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



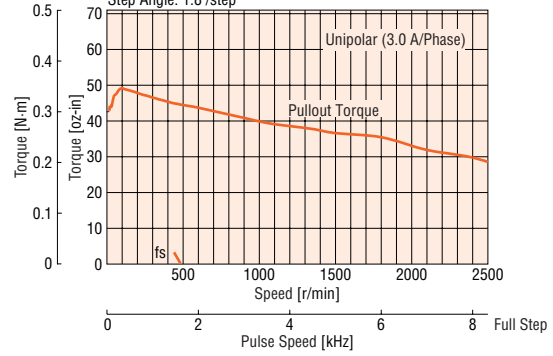
PK264-02AR11 PK264-02AR12 Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



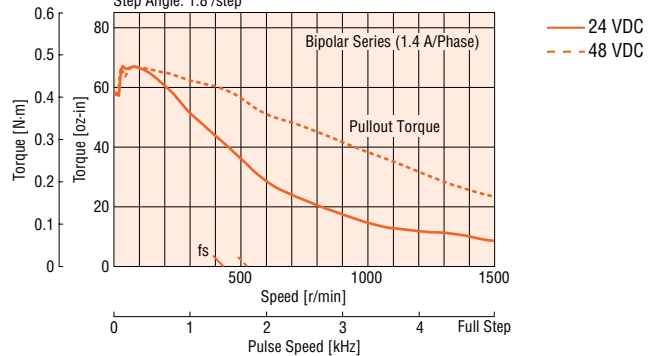
PK264-03AR11 PK264-03AR12 Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



PK264-E2.0AR11 PK264-E2.0AR12 Bipolar (Series)

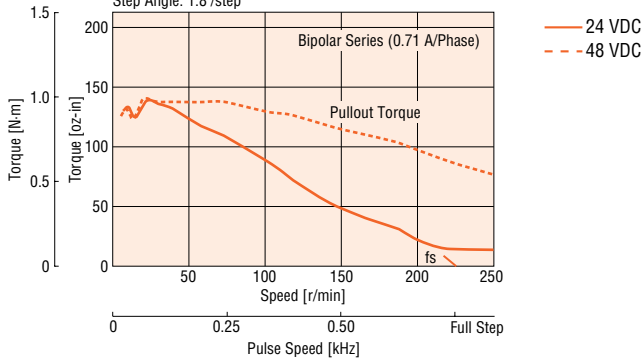
Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



● PK266-01AR11

PK266-01AR12 Bipolar (Series)

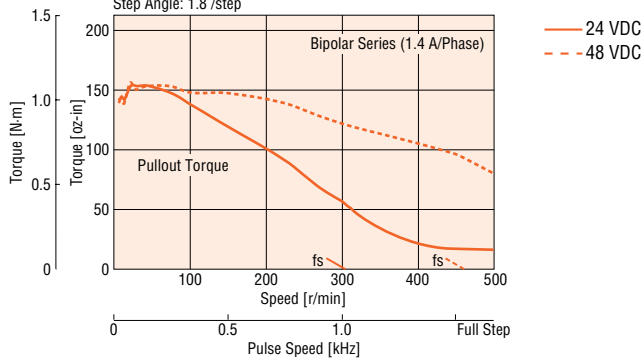
Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



● PK266-02AR11

PK266-02AR12 Bipolar (Series)

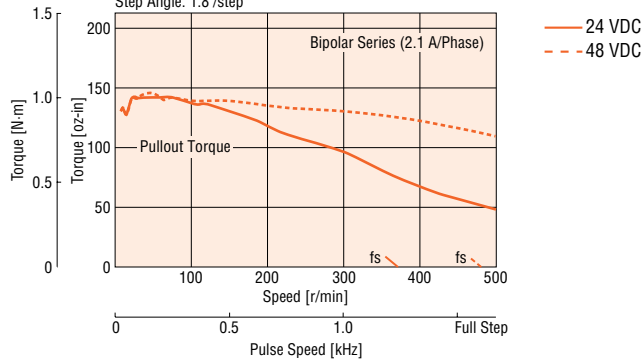
Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



● PK266-03AR11

PK266-03AR12 Bipolar (Series)

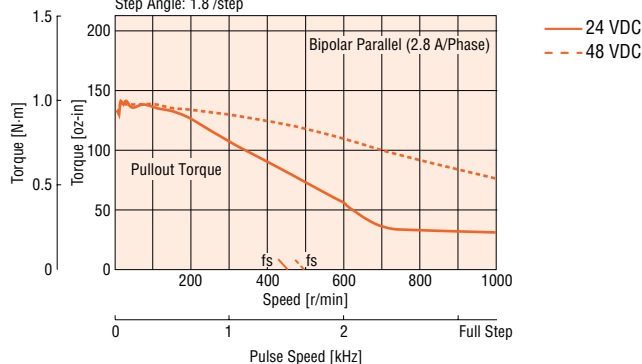
Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



● PK266-E2.0AR11

PK266-E2.0AR12 Bipolar (Parallel)

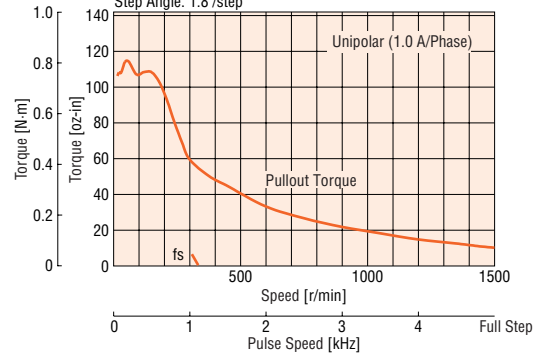
Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



● PK266-01AR11

PK266-01AR12 Unipolar

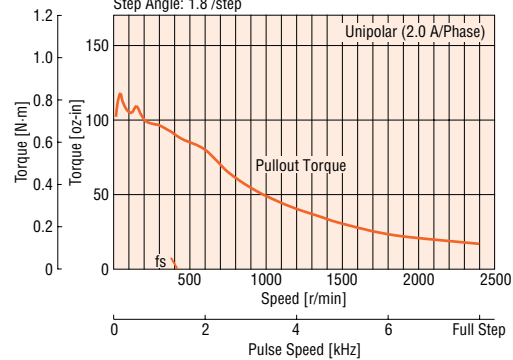
Power Input: 24 VDC Unipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



● PK266-02AR11

PK266-02AR12 Unipolar

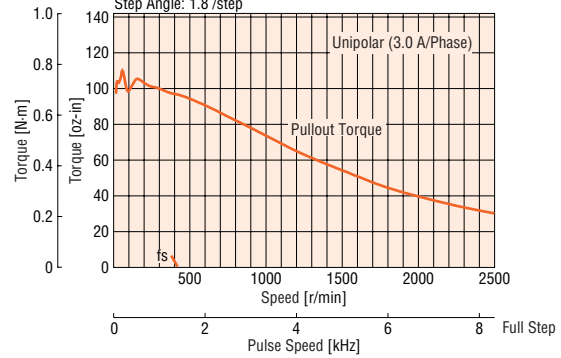
Power Input: 24 VDC Unipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



● PK266-03AR11

PK266-03AR12 Unipolar

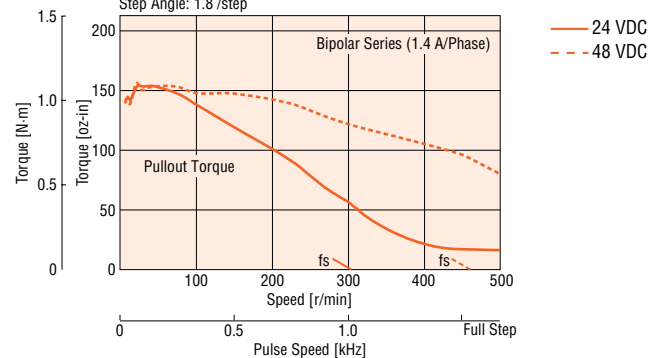
Power Input: 24 VDC Unipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



● PK266-E2.0AR11

PK266-E2.0AR12 Bipolar (Series)

Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $1.8^\circ/\text{step}$



Introduction

AS

AS PLUS

ASC

RK

CRK II

CSK

PMC

UMK

CSK

PK/PV

PK

UI2120G

EMP401

EMP402

SG8030J

SMK

Accessories

Before Using a Stepping Motor

Controllers

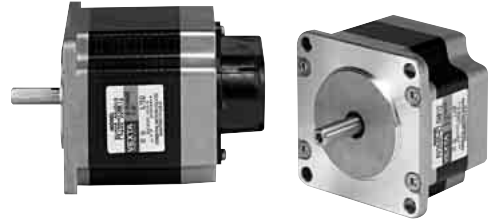
Low-Speed Synchronous Motors

Accessories

Before Using a Stepping Motor

□ 2.22 in. (□ 56.4 mm)

PK Series High Resolution Type with Encoder

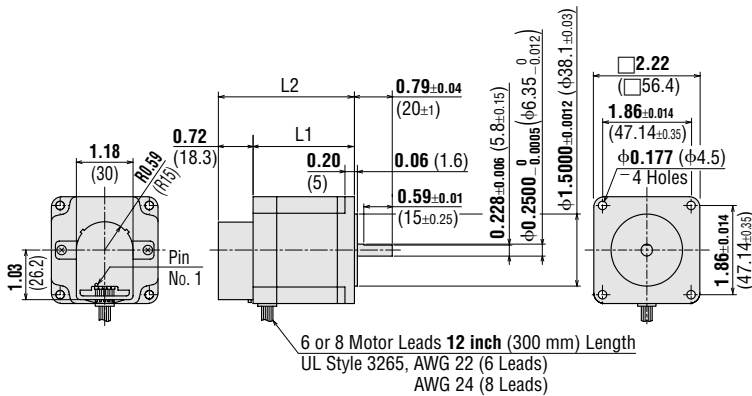


Specifications

Model Single Shaft	Basic Step Angle	Connection Type	Holding Torque		Current per Phase A/phase	Voltage VDC	Resistance per Phase Ω/phase	Inductance mH/phase	Rotor Inertia J		Lead Wires
			oz-in	N-m					oz-in ²	kg-m ²	
PK264M-01AR11 PK264M-01AR12	0.9°	Bipolar (Series)	68	0.48	0.71	8.1	11.4	26	0.66	120×10 ⁻⁷	6
		Unipolar	55	0.39	1	5.7	5.7	6.5			
PK264M-02AR11 PK264M-02AR12	0.9°	Bipolar (Series)	68	0.48	1.4	3.9	2.8	6.8	0.66	120×10 ⁻⁷	6
		Unipolar	55	0.39	2	2.8	1.4	1.7			
PK264M-03AR11 PK264M-03AR12	0.9°	Bipolar (Series)	68	0.48	2.1	2.6	1.26	3	0.66	120×10 ⁻⁷	6
		Unipolar	55	0.39	3	1.9	0.63	0.75			
PK264M-E2.0AR11 PK264M-E2.0AR12	0.9°	Bipolar (Parallel)	68	0.48	2.8	1.96	0.7	1.7	0.66	120×10 ⁻⁷	8
		Bipolar (Series)	68	0.48	1.4	3.9	2.8	6.8			
		Unipolar	55	0.39	2	2.8	1.4	1.7			
PK266M-01AR11 PK266M-01AR12	0.9°	Bipolar (Series)	166	1.17	0.71	11	14.8	50.8	1.64	300×10 ⁻⁷	6
		Unipolar	127	0.9	1	7.4	7.4	12.7			
PK266M-02AR11 PK266M-02AR12	0.9°	Bipolar (Series)	166	1.17	1.4	5	3.6	12.8	1.64	300×10 ⁻⁷	6
		Unipolar	127	0.9	2	3.6	1.8	3.2			
PK266M-03AR11 PK266M-03AR12	0.9°	Bipolar (Series)	166	1.17	2.1	3.2	1.5	5.8	1.64	300×10 ⁻⁷	6
		Unipolar	127	0.9	3	2.3	0.75	1.45			
PK266M-E2.0AR11 PK266M-E2.0AR12	0.9°	Bipolar (Parallel)	166	1.17	2.8	2.52	0.9	3.2	1.64	300×10 ⁻⁷	8
		Bipolar (Series)	166	1.17	1.4	5	3.6	12.8			
		Unipolar	127	0.9	2	3.6	1.8	3.2			

How to Read Specifications → Page C-9
Motor Wiring Diagrams → Page C-189

Dimensions Scale 1/4, Unit = inch (mm)



Model	L1 inch (mm)	L2 inch (mm)	Weight lb. (kg)	DXF
PK264M-0□AR11 PK264M-0□AR12	1.54 (39)	2.26 (57.3)	1.03 (0.47)	B808U
PK264M-E2.0AR11 PK264M-E2.0AR12				
PK266M-0□AR11 PK266M-0□AR12	2.13 (54)	2.85 (72.3)	1.58 (0.72)	B809U
PK266M-E2.0AR11 PK266M-E2.0AR12				

• Enter the winding specification in the box (□) within the model number.

Encoder Specifications → Page C-239

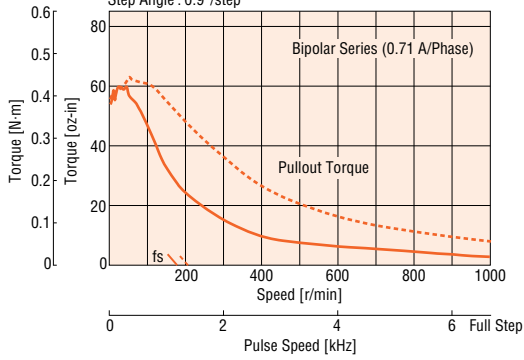
Speed-Torque Characteristics

How to Read Speed-Torque Characteristics → Page C-10

PK264M-01AR11

PK264M-01AR12 Bipolar (Series)

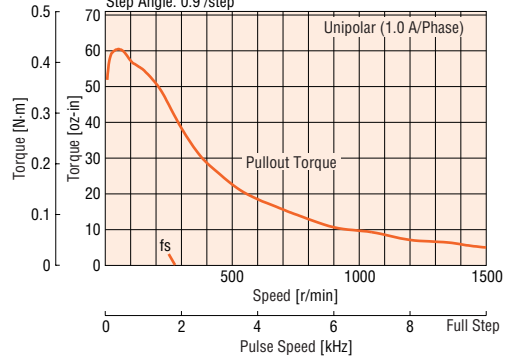
Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2$ ($140 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: $0.9^\circ/\text{step}$



PK264M-01AR11

PK264M-01AR12 Unipolar

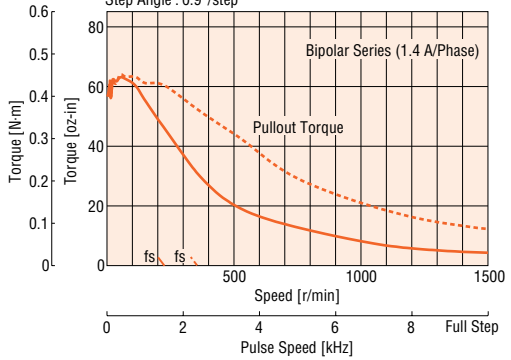
Power Input: 24 VDC Unipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2$ ($140 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: $0.9^\circ/\text{step}$



PK264M-02AR11

PK264M-02AR12 Bipolar (Series)

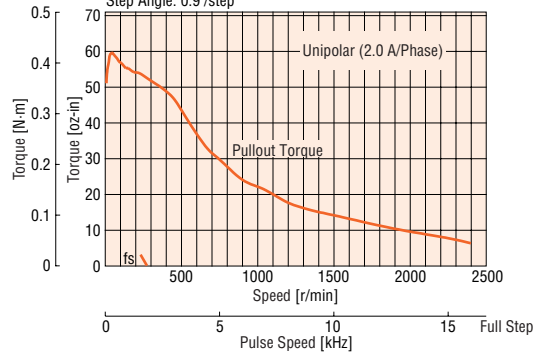
Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2$ ($140 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: $0.9^\circ/\text{step}$



PK264M-02AR11

PK264M-02AR12 Unipolar

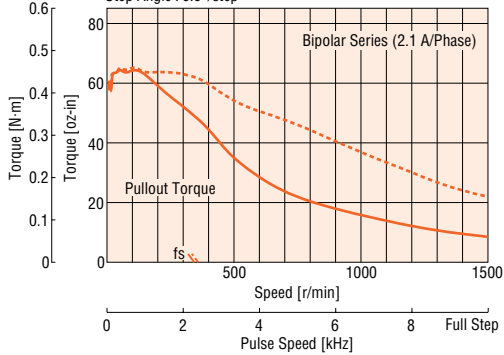
Power Input: 24 VDC Unipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2$ ($140 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: $0.9^\circ/\text{step}$



PK264M-03AR11

PK264M-03AR12 Bipolar (Series)

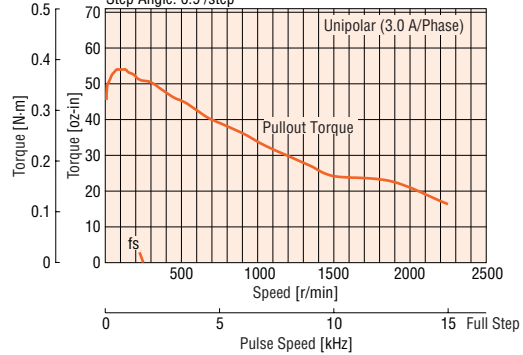
Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2$ ($140 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: $0.9^\circ/\text{step}$



PK264M-03AR11

PK264M-03AR12 Unipolar

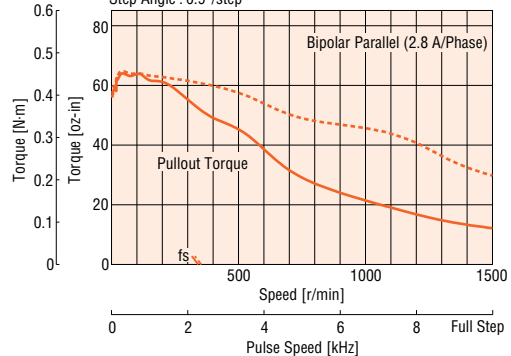
Power Input: 24 VDC Unipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2$ ($140 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: $0.9^\circ/\text{step}$



PK264M-E2.0AR11

PK264M-E2.0AR12 Bipolar (Parallel)

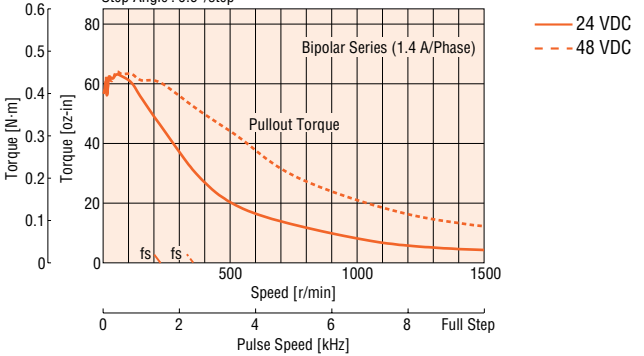
Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2$ ($140 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: $0.9^\circ/\text{step}$



PK264M-E2.0AR11

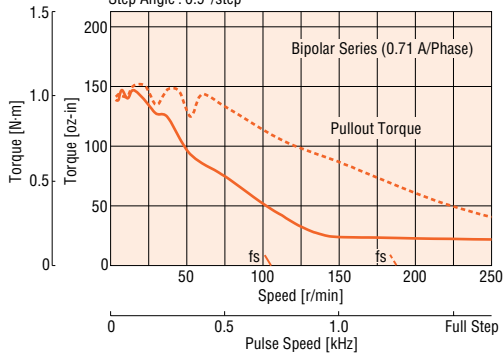
PK264M-E2.0AR12 Bipolar (Series)

Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2$ ($140 \times 10^{-7} \text{ kg-m}^2$)
Step Angle: $0.9^\circ/\text{step}$



PK266M-01AR11
PK266M-01AR12 Bipolar (Series)

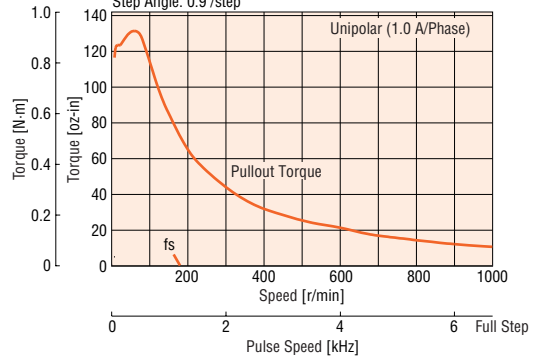
Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



— 24 VDC
- - - 48 VDC

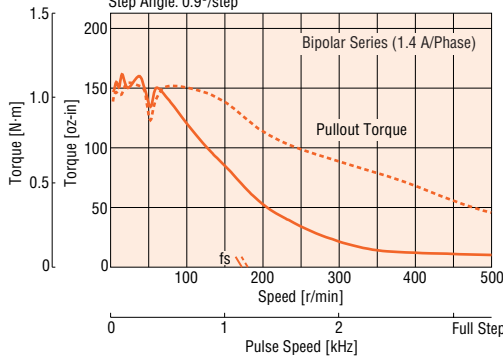
PK266M-01AR11
PK266M-01AR12 Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



PK266M-02AR11
PK266M-02AR12 Bipolar (Series)

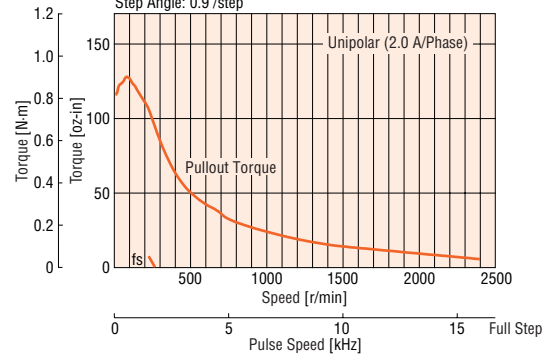
Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



— 24 VDC
- - - 48 VDC

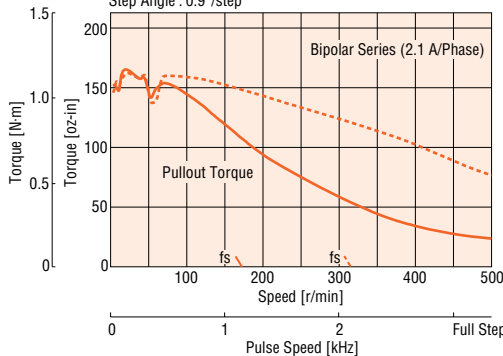
PK266M-02AR11
PK266M-02AR12 Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



PK266M-03AR11
PK266M-03AR12 Bipolar (Series)

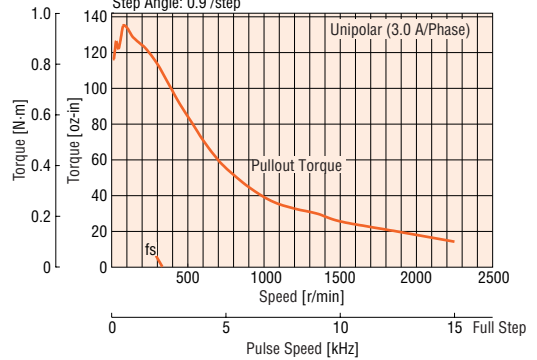
Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



— 24 VDC
- - - 48 VDC

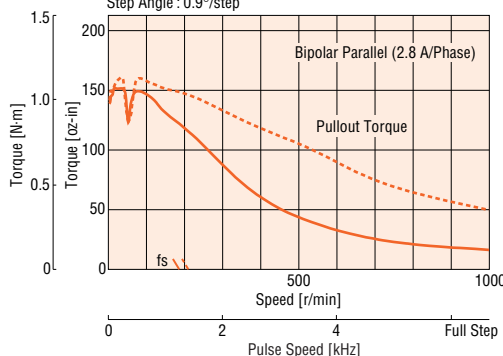
PK266M-03AR11
PK266M-03AR12 Unipolar

Power Input: 24 VDC Unipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



PK266M-E2.0AR11
PK266M-E2.0AR12 Bipolar (Parallel)

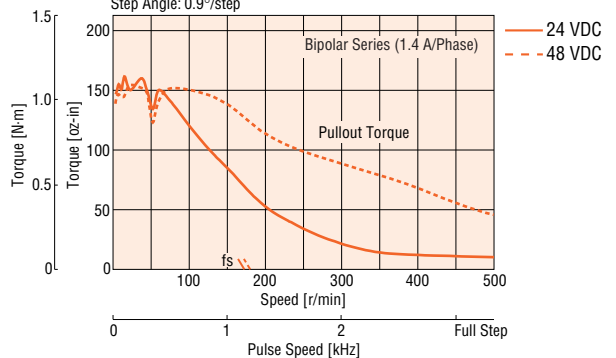
Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



— 24 VDC
- - - 48 VDC

PK266M-E2.0AR11
PK266M-E2.0AR12 Bipolar (Series)

Bipolar Constant Current Driver
Load Inertia: $J_L = 0.77 \text{ oz-in}^2 (140 \times 10^{-7} \text{ kg-m}^2)$
Step Angle: $0.9^\circ/\text{step}$



Encoder Specifications

Note:

- Use the motor within the encoder specifications.
HEDS-5600 series encoders by Agilent Technologies, Inc. are used.

Recommended Operating Ranges

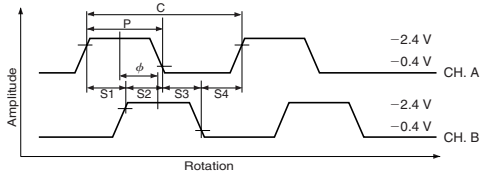
Item	Symbol	Min	TYP.	MAX.	Note
Supplied Voltage	Vcc	4.5 V	5.0 V	5.5 V	Ripple<100 mVp-p
Load Capacity	Cl	—	—	100 pF	2.7 Ω , pull-up
Response Frequency	f	—	—	100 kHz	Rotating speed (r/min) $\times(N/60)$

N=Encoder Resolution

Note:

- The encoder specifications are designed to guarantee operation based on a response frequency of 100 kHz. However, the encoder can be operated at a minimum response frequency of 100 kHz.

Output Waveform



Encoder Characteristics

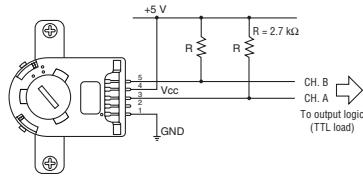
Unless otherwise specified, the following characteristics assume that the encoder is installed within the allowable ranges of error and operated under the recommended operating conditions. Each characteristic value indicates the worst value within one rotation of the code wheel.

Item	Symbol	TYP.*	Max.
Pulse-width error	ΔP	7°e	45°e
Logic-width error	ΔS	5°e	45°e
Phase error	$\Delta\phi$	2°e	20°e
Position error	$\Delta\theta$	10 arc min.	40 arc min.
Cycle error	ΔC	3°e	5.5°e

* TYP values are based on Vcc = 5.0 V and TA = 77°F (25°C).

Encoder Electrical Interface

We recommend that the CH.A and CH.B outputs be pulled up with a resistance of 2.7 k Ω ($\pm 10\%$) in order to shorten the rise time of the output pulse. Install the pull-up resistor near the encoder [within 6.6 feet (1 m)].



Pull-up of Encoder Output

Applicable Connectors

Manufacturer	Model Numbers
AMP®	103975-4
	640442-5
DUPONT®	65039-032 (housing)
	4825X-000 (contact)
Agilent Technologies®	HEDS-8902 (for 2 channels: 4 lead wires)
MOLEX®	2695 series (housing)
	2759 series (contact)

Introduction

AS

AS PLUS

ASC

DC Input

AC Input

RK

CRK II

CSK

PMC

DC Input

AC Input

UMK

DC Input

CSK

Encoder

Encoder

PK/PV

PK

with Indexer

Driver

with Indeter

EMP401

EMP402

SG8030J

SMK

Accessories

Before Using a Stepping Motor

General Specifications

Item	Specifications
Shaft Runout	0.002 inch (0.05 mm) T.I.R at top of output shaft *1
Perpendicularity	0.003 inch (0.075 mm) T.I.R *1
Concentricity	0.003 inch (0.075 mm) T.I.R *1
Shaft Radial Play *2	0.001 inch (0.025 mm) max. of 1.12 lb. (5 N)
Shaft Axial Play *3	0.003 inch (0.075 mm) max. of 2.2 lb. (10 N)
Step Accuracy *4	PK Series: ±3 arc min. (±0.05°) PV Series: ±2 arc min. (±0.034°)
Insulation Resistance	100 MΩ minimum under normal temperature and humidity, when measured by a 500 VDC megger between the motor coils and the motor casing.
Dielectric Strength *5	Sufficient to withstand 1.0 kV, 60 Hz applied between the motor coils and casing for one minute, under normal ambient temperature and humidity.
Insulation Class	Class B [266°F (130°C)]
Temperature Rise	Temperature rise of the coil measured by the Change Resistance Method is 144°F (80°F) or less. (at standstill, two phases energized)
Ambient Humidity Range	85% or less
Ambient Temperature Range	14°F (-10°C)~122°F (+50°C)

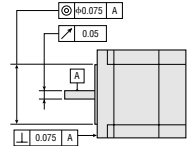
*1 T.I.R. (Total Indicator Reading): Refers to the total dial gauge reading when the measurement section is rotated one revolution centered on the reference axis center.

*2 Radial Play: Refers to the displacement in shaft position in the radial direction, when a 1.12 lb. (5 N) load is applied in the radial direction to the motor shaft tip.

*3 Axial Play: Refers to the displacement in shaft position in the axial direction, when a 2.2 lb. (10 N) load is applied to the motor shaft in the axial direction.

*4 This value is for full step with no load. (The value changes with size of load.)

*5 For motors with a frame size of 1.65 inch sq. (42 mm sq.) or less, 60 Hz, 0.5 kV for 1 minute.



Permissible Overhung Load and Permissible Thrust Load

Unit = Upper values: lb./Lower values: N

Type	Model	Overhung Load Distance from Shaft End [inch (mm)]					Thrust Load
		0	0.2 (5)	0.39 (10)	0.59 (15)	0.79 (20)	
PK Series High Torque Type	PK223P PK224P PK225P	5.6 25	7.6 34	11.7 52	—	—	The permissible thrust load [lb. (N)] shall be no greater than the motor mass.
	PK233P, PK235P	4.5 20	5.6 25	7.6 34	11.7 52	—	
	PK244P, PK246P	4.5 20	5.6 25	7.6 34	11.7 52	—	
PK Series Standard Type	PK243 PK244 PK245	4.5 20	5.6 25	7.6 34	11.7 52	—	
	PK264 PK264-AR11 PK264-AR12 PK266 PK266-AR11 PK266-AR12 PK268	12.1 54	15 67	20 89	29 130	—	
	PK296 PK299 PK2913	58 260	65 290	76 340	87 390	108 480	
	PV Series	PV264, PV266 PV267, PV269	11.2 50	13.5 60	16.8 75	22 100	
PK Series High Resolution Type	PK243M PK244M PK245M	4.5 20	5.6 25	7.6 34	11.7 52	—	
	PK264M PK264M-AR11 PK264M-AR12 PK266M PK266M-AR11 PK266M-AR12 PK268M	12.1 54	15 67	20 89	29 130	—	
PK Series SH Geared Type	PK223-SG□	3.3 15	3.8 17	4.5 20	5.1 23	—	
	PK243-SG□	2.2 10	3.3 15	4.5 20	6.7 30	—	3.3 15
	PK264-SG3.6 PK264-SG7.2 PK264-SG9 PK264-SG10	6.7 30	9 40	11.2 50	13.5 60	15.7 70	6.7 30
	PK264-SG18 PK264-SG36 PK264-SG50 PK264-SG100	18 80	22 100	27 120	31 140	36 160	—
	PK296-SG□	49 220	56 250	67 300	78 350	90 400	22 100